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Faculty Workload Study Framework Report

February 28, 1989

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Peat Marwick Main & Co.
345 Park Avenue
New York, New York 10154

Telephone 212 758 9700
Telex 666890

Telecopiers 212 758 9819
212 308 9064

February 28, 1989

Mr. R. Wayne Richey
Executive Secretary
Iowa Board of Regents
Lucas State Office Building
Des Moines, IA 50319

Dear Wayne:

I am very pleased to submit herewith the final Framework Report for the Iowa Board of Regents faculty workload study, which provides for partial completion of our work for audit projects B.4.1, C.4.1, and D.4.1. The companion documents to this report include three additional reports which analyze the specific workload issues and environments at each of the Regents institutions: the State University of Iowa; the University of Northern Iowa; and Iowa State University. Please refer to these documents under separate cover.

A brief overview of KPMG Peat Marwick's methodology used to complete the study, as well as our outline of the topics discussed in the framework report as background preparation for the three institutional reports, are provided below.

METHODOLOGY

The work steps involved in completing the faculty workload study included collection and analysis of quantitative and anecdotal information from the institutions and their peers, as well as review of secondary research on the issue of faculty workload. The specific work steps were as follows.

- Conduct of preliminary interviews with faculty and administration at each of the institutions as well as with representative Regents and Regents staff;
- Collection and review of general documentation along with secondary research materials;
- Development of institutional and peer data collection methods and instruments, through discussion with institutional representatives and KPMG Peat Marwick's independent contractors;



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- Provision of data collection forms to each of the Regents institutions for the institutional colleges and their peer sets;
- Conduct of extensive interviews on each campus with institutional administrators, deans, and a variety of faculty members, along with collection of additional documentation;
- Analysis of data sets for the institutions and their peers as provided by each institution, along with analysis of anecdotal and qualitative data collected through the interviews and documentation;
- Preparation of draft documents regarding the framework and each of the institutional reports, and circulation of the same to the Regents, the Board staff, and the institutions for review and commentary; and
- Preparation and submission of the final reports for the faculty workload study to the Iowa Board of Regents and the Regents institutions.

A more detailed discussion of the development process and methodology for the faculty workload reports is presented as Appendix 1 in the framework reports. The list of documents reviewed is also included as Appendix 2. The lists of people interviewed are divided by the institutions with which they are associated and included in the relevant institutional reports; interviews among the Regents and their staff are included in Appendix 2 of the framework report.

FRAMEWORK SUMMARY

This framework report contains an executive summary followed by three chapters. Chapter I presents an overview of faculty workload. It compares the academic profession to other professions, presents some common misperceptions, discusses some of the factors that influence variations in faculty activities, and notes some of the difficulties in quantifying faculty activities and setting measures.

Chapter II discusses in detail the three components of faculty workload: instruction; research, scholarship and creative activity; and service. Included in this chapter are faculty profiles culled from actual faculty experiences at the Regents institutions, which serve to illuminate the more abstract discussions of faculty workload components.

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Chapter III moves the discussion from faculty workload to faculty resource deployment. This chapter discusses the relationship between institutional mission and faculty activities and defines faculty resources. An approach to developing key indicators is then introduced, which points towards ways in which the institutions and the Regents should consider assessing faculty activities and therefore faculty effectiveness in the context of the institutional mission. The development and current use of the Regents Faculty Activity Analysis Reports is integrated into this discussion, along with a discussion of alternative analytical uses of the FAAR data.

* * * * *

KPMG Peat Marwick's human resources audit team would like to reiterate their gratitude for the time and generosity extended to them by all participating parties throughout the study. In particular, the courteous and timely cooperation provided by each of the institutional representatives greatly eased the task of conducting and completing the study. We look forward to addressing any concerns regarding the faculty workload study.

Very truly yours,

PEAT MARWICK MAIN & CO.



Alceste T. Pappas, Ph.D.
Partner

ATP:ejr

EXECUTIVE SUMMARY

This constitutes an executive summary of the Framework Report for the Iowa Board of Regents Faculty Workload study, part of Peat Marwick's organizational audit. It serves as a companion work to the three institutional faculty workload studies, which should be read in tandem with this report.

What is Faculty Workload?

The issue of faculty workload is central to the management and direction-setting of any academic institution. Yet, paradoxes are inherent in the notion of institutionally administered faculty workload, in light of the collegial "self-management" of most institutions and the conscientious independence of most faculty members. The need for extensive public accountability in state-supported institutions adds to the imperative for and the complexity in addressing faculty workload.

Academic professionals are similar to other professionals in their self-motivation, status as experts in a field, and tendency toward independent intellectual lifestyles. The collegial nature of the university creates a uniquely symbiotic environment for academic professionals, where the concept of "academic freedom" is cherished. The concept of faculty workload as a defined set of activities and outputs required to be performed by a faculty member in a given timeframe is generally perceived as being in conflict with the notion of an academic "way of life".

Faculty workload as a term is often interpreted to mean the direct instructional and other assigned responsibilities a faculty member carries in a semester or other academic timeframe. However, the scope of expected faculty activities ranges far beyond this limited definition.

For many years and in many studies, the average faculty work week has been reported as between fifty and sixty hours. This average is borne out by Iowa's faculty throughout the results of Board data collection: faculty at the Regents institutions report over the last ten years that their average work week is between fifty-five and sixty hours.

Workload Components

The study of faculty workload has evolved a broad set of categories by which faculty activity are analyzed. These relate to the overall mission of an institution, and include:

- Instruction;
- Scholarship, Research and Creative Activity; and
- Service.

A fourth "category" has emerged recently which addresses more specifically extension, clinical and other professionally-oriented faculty activity. This fourth category is termed Professional Practice.

Instruction

The majority of most faculty members' workload consists of those activities related to the delivery of instruction. This includes a wide range of activities which depend on factors such as instructional setting, level of students, academic discipline and so on. Instructional activity can be broken down into: direct instruction; instructional preparation and evaluation; and advising.

- Direct instruction includes undergraduate and graduate organized courses and individual instruction. Also included are committee memberships for graduate degree work and instruction of research graduate or post-doctoral assistants.

- Preparation and evaluation activities include preparation of teaching materials and new course material, and preparation and grading of assessment material. Also included are student conferences and performance review, which usually relate to clinical and practical instruction.
- Advising and counseling duties include course-related meetings and counseling, and general academic advising.

Measures which have been developed to evaluate levels of instructional workload generally utilize registration data and therefore record only credit-generating course loads. Different disciplines with different instructional needs and settings are better or less suited for different kinds of measurement. Some of the standard quantitative measures are:

- Contact hours;
- Faculty credit hours;
- Student credit hours; and
- Unique preparations.

Many factors influence the actual level of a given faculty's instructional load, including:

- Use of graduate teaching assistants;
- Team teaching;
- Academic discipline;
- Instructional delivery mode;
- Class size and course level;
- Academic rank; and
- Individual strengths.

Scholarship, Research and Creative Activity

Scholarship and related activities encompass the area of workload in which a faculty member applies his or her academic expertise to expand the frontiers of a given field and produce an output which can be shared with and evaluated by peers and the general public.

Scholarly activity must be pursued also to support the teaching expertise of a faculty member, and to remain in service to the community as an expert in his or her field.

Examples of scholarly activity include:

- Scientific experiment;
- Conducting field research;
- Writing scholarly books or articles;
- Artwork or creating dramatic, literary or musical works;
- Rehearsing for performance;
- Practicing athletic skills (for physical education faculty); and
- Developing grant proposals or applications for funding.

A distinction is often drawn, with regard to the funding of scholarship, between "departmental" research and "sponsored" research.

Measurement of scholarly outputs is highly problematic, given the range of outputs by discipline and the challenges of assessing quality. A broad distinction may be drawn between:

- Published outputs; and
- Creative outputs;

although these categories do not cover all scholarly activity. Recognition by peers and the public is an accepted test of quality. Another output measure looks at the level of grant dollars generated; this measure is strongly influenced by discipline. Other problems with measurement include:

- Research yield rate differences stemming from differences in disciplines;
- Quantified measurement of outputs versus assessment of quality; and
- Use of graduate research assistants.

Professional development activities are also included as part of scholarly activity, such as participation in conferences, leaves and fellowships, and general reading to keep up in the field. While maintenance of expertise is expected of faculty, related activities are not usually counted as part of faculty workload assignments, and are therefore often done on the faculty's "own time".

Service

Service encompasses a very wide range of faculty activities, in attempts to cover the balance of activities in which a faculty member must be engaged. Service is generally expected of all faculty, but is usually not assigned or specifically evaluated as part of workload. Service activities are divided into: institutional service; public service; and professional service.

- Institutional service is expected of all faculty and includes participation on governance and curriculum committees, as well as activities related to student services and administrative support.
- Public service expectations vary widely depending on institutional goals and expectations, and the discipline in which a faculty member works. Community workshops and local advising are examples.
- Professional service entails service rendered to a faculty member's disciplinary peers through editing or reviewing scholarly publications or holding office in professional associations.

Problems arise with institutional evaluation of and rewards for service. Provision of "release time" from instructional expectations to faculty carrying heavy service responsibilities is not unusual, but the remaining faculty must be able to cover the departmental curriculum.

Professional Practice

Professional practice is a recently defined component of faculty workload which is already being used in Iowa State University's promotion and tenure guidelines. It is related closely to both instruction and service, but includes only disciplines and/or programs which entail professional interaction with a non-student clientele. Such disciplines and programs may include:

- Extension programs;
- Clinical and diagnostic services in medical, nursing, dental and veterinary medicine fields; and
- Other professional services such as libraries and statistical services.

These activities are generally part of a faculty's assignment, and may include instruction, service and research within their scope, which makes discussion and measurement difficult. Standard instructional measures often are not appropriate, nor are the informal methods used in evaluating service activities. Thus consideration of professional practice activities requires the development of measures which appropriately reflect the faculty member's effort and contribution in organized, non-student-focused settings.

Faculty Resource Deployment

The value of knowing faculty activity emerges when such activity is related to the direction in which the institution, at each level, wishes to move. This requires a linkage of faculty workload definition, allocation and assessment to the strategic goals and operational plans of the institution.

- Overall institutional direction-setting and supporting strategies need to be developed by the Regents and institutional leaders in concert, from which faculty deployment needs are developed and managed at the departmental level.

- A principle inherent in the faculty resource deployment (FRD) approach is that institutional managers and their faculty consider faculty deployment as a flexible tool to redirect or focus the energies of the department, college or institution toward new opportunities or in response to new conditions.
- Flexibility is also needed in setting expectations and standards which are intended to apply across disciplines within a college, or across colleges within an institution. Disciplinary differences become important.
- Cost savings with regard to faculty resources generally can only be achieved through staff reduction, rather than through faculty redeployment.

The manner in which faculty deployment is utilized and evaluated shifts as it moves up through institutional management levels.

- Departmental administrators are responsible for allocating instructional and service workloads, and implementing scholarship expectations, based on an understanding of program needs, faculty strengths, and departmental/collegiate goals. Departmental administrators need to report results to deans and above, and therefore must collect and review workload information according to whatever standards are set.
- College deans allocate and coordinate resources across their departments in order to cover programmatic and operational needs, as well as to move toward institutional strategic goals. They are responsible for setting workload parameters which must be met by all departments, and report their college's performance to institutional leadership and the Board of Regents. Peer comparisons are useful at this level.

- Institutional executives develop and assess FRD information to measure the success of colleges in achieving strategic goals regarding balance of effort and effectiveness of performance. Critical allocation decisions are made based on such input. Institutional executives are accountable to the Board of Regents to show that they have responsibly allocated and monitored the use of the resources provided to them.
- The Board of Regents seeks the appropriation of resources for the institutions, and represents resource allocation decisions to the public. It also determines the strategic direction of the Regents institutions and sets the parameters within which institutional planning and implementation can occur. The Regents also determine broad faculty deployment guidelines based on the character and direction of the institution. The Regents must trust the capability and integrity of the institutional executives who have been hired and selected to manage the institution at each level. Results of institutional management decisions are primarily what the Regents should oversee, through the evaluation of "strategic indicators" (see below).

Various levels of institutional management must develop and utilize focused sets of FRD performance indicators which can be analyzed through a time-series approach.

- "Management indicators" supply the basic faculty activity information by which the departmental administrator makes deployment and reward decisions. These will differ by department, but should conform to basic reporting parameters as much as possible.
- "Strategic indicators" are developed for the collegiate, institutional and Regents levels, and focus at a summary level on those areas which reflect the goals of the institution.

Major features which are fundamental to the FRD strategic indicator approach include the following.

- An appropriate set of strategic indicators is developed for each upper management level.
- The indicators are viewed in a dynamic, comparative context, through time-series or peer set comparisons, or both.
- Interpretive analysis of FRD reporting clearly links the conditions illustrated by the strategic indicators to the goals and strategies of the college and institution.

The specific set of strategic indicators developed by each institution are based on:

- Institutional goals and information required to evaluate related progress;
- The character of the institution and the type of measures appropriate for the various colleges; and
- The capabilities of the institutional research and management information systems in place.

The Board of Regents and Faculty Workload Analysis

The FRD approach requires a concerted, long-term effort on the part of all levels of management to develop appropriate planning processes, indicator sets and information systems. It is recommended that the Board of Regents and the institutions move toward establishment of these three areas in order to implement FRD in the future.

The Regents currently collect workload information through the Faculty Activity Analysis Reports (FAARs). The FAAR has evolved over the last two decades as a workload information and reporting device, and appears to provide useful data.

As a near-term solution to the Board's need for more useful faculty workload information, it is recommended that the Regents FAARs be utilized more intensively, with a more deeply analytical and integrated examination of reported faculty activity.

The more intensive analysis of currently available faculty workload information involves:

- The continued collection of the Regents FAAR data on at least a biennial basis, using the same or similar reporting formats and maintaining collegiate-level examination;
- The additional collection during the FAAR cycle of basic departmental and collegiate information such as course enrollments, credit hours, and degree information;
- The establishment of a baseline Year 0, and the subsequent analysis of FAARs using time series comparisons within an institution or college, such analysis being provided preliminarily by the institutions and subsequently in greater depth by the Board office;
- The provision by institutions, with their FAAR submissions, of concise descriptive interpretation of changes in activity as shown in the FAAR, and how those changes reflect institutional goals and plans or environmental impacts; and
- The development by the Board of Regents of a general set of faculty activity guidelines, based on each institution's strategic goals which emerge from Regents and institutional planning.

This interim approach to FRD will still require a substantially increased level of effort on the part of the institutions, the Board of Regents and the Board office staff. However, the effort invested in producing the FAAR will be put to more productive use with more cogent analysis of the reported information.

IOWA BOARD OF REGENTS
FACULTY WORKLOAD STUDY

FRAMEWORK REPORT

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FACULTY WORKLOAD STUDY

FRAMEWORK REPORT

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CHAPTER I
OVERVIEW - WHAT IS FACULTY WORKLOAD?

This chapter presents an overview of the concepts and issues related to faculty workload. We begin by discussing the nature of the academic life compared with other professions, followed by a discussion of terminology. Then we present a summary of the components of faculty workload, which are discussed in greater detail in Chapter III. The third section of this chapter discusses a variety of issues and problems associated with workload assignment and measurement.

The issue of faculty workload is central to the management and direction-setting of any educational institution. Yet, attention to the measurement and administration of faculty workload has undergone cycles of scrutiny and neglect throughout the modern history of higher education. Paradoxes are inherent in the notion of institutionally administered faculty workload, in light of the collegial "self-management" of most academic institutions, and the conscious independence of most faculty members. The need for public accountability in state-supported institutions adds to the complexities in addressing the issue.

Nevertheless, the Iowa Board of Regents and the Regents institutions today face a growing need to allocate a limited resource base toward achieving diverse educational goals in an increasingly competitive environment. In order to more effectively deploy their faculty, the Regents and their institutions must first gain a common understanding of what faculty workload is, how it may and may not be "managed", and where faculty workload decisions may be linked to system and institutional planning efforts.

THE ACADEMIC PROFESSION

Before we can define faculty workload, we must examine the characteristics which define the academic professional and the environment in which he or she works. The academic professional generally pursues a professional mission of

imparting expert knowledge to an audience interested in learning. This mission to "teach" is pursued in the classroom and through sharing in a public forum the results of research, scholarly effort, and academic expertise. The audience may be students, other scholars, experts in the field, the community, or the public at large.

Misconceptions Regarding Academic Professionals

The academic "work place" is unfamiliar in its realities to most outside observers. The work of an academic is misperceived in a variety of ways, most of which are easily superseded upon some reflection on the actual requirements of the work. Yet misperceptions persist, among them:

- Faculty are working only when they are in a classroom teaching, and a professor who teaches six 60-minute classes in a week must not be working a full 40-hour week, or is working less hard than other professionals;
- Faculty in the lower ranks may work hard to achieve promotion or tenure; once they are tenured professors, however, they sit back and do a minimal amount of work;
- faculty live in an "ivory tower," protected from the competition and nitty-gritty work of the business world, and therefore do not need or are not able to produce anything useful.

These views prevail even among observers who have had more extensive contact with academia. The balance of this chapter seeks to explore and dispel the myths outlined above. However, the complexity of these issues is illustrated in the following quote from one institutional administrator:

The most important activity faculty engage in is thinking, and this does not necessarily occur according to any kind of schedule. Indeed, the popular notion of the "absent-minded professor" probably has some basis in reality, in that faculty are often preoccupied with thoughts about their field when they are not in the classroom, lab, library or office.

Although most professions cannot escape misperception and criticism regarding the type and amount of work they do, few face the public scrutiny that confronts the academic profession, especially within public institutions. Yet academics share some important characteristics with other professionals, as well as exhibit notable differences.

Academics versus Other Professions

The academic professional shares the following characteristics with other professionals.

- A professional academic must achieve extensive knowledge in a particular field of study, after which he or she is considered to be an expert by both peers and the general public. In addition, the academic is credentialed in a field of knowledge rather than in the process of teaching that knowledge (just as the lawyer is trained in the theory rather than the practice of the law, and the doctor does not receive training with patients until the third or fourth year of study).
- Like other professionals, the academic may be most visible to the public in her most organized professional setting (the classroom) but her responsibilities, time spent working, and outputs extend far beyond the classroom arena. Similarly, a litigator actually spends little time in the courtroom; an architect may spend many hours preparing a design proposal and not receive the contract; a farmer sows and reaps, reads farm journals, spends time with extension agents, and does his or her own accounting, and yet may have fewer crops to sell in a drought year when harder work was required. The legislator may spend much of his or her time in committees or with district constituents, in addition to time spent in session on the state house floor.
- The academic profession is a way of life rather than a job (as is also the case with the medical profession) and tends to attract self-motivated, intellectually-oriented individuals who seek a high degree of self-sufficiency and professional autonomy.

Of course, as is true for individuals within other professions and occupations, individual faculty may exhibit these tendencies to varying degrees, and exceptions can always be found. Nevertheless, individuals who gravitate toward academia are likely to have substantial talent and initiative in order to succeed in the academic world. These characteristics similarly are necessary to the success of many other professionals.

Relationship With The Institution

Given these similarities to other professionals, however, one also can identify differences. The academic must operate within a markedly different environment. Academics generally pursue their professions within faculty of their peers, since individual tutoring and research in an academic field is not likely to supply an adequate livelihood. Thus, faculty members must come together in institutions in order to pursue their professional goals. Faculty members therefore have a unique relationship with their peers and their institution.

- Faculty work in a symbiotic relationship with their institution, since an educational institution would be empty of purpose without its learned faculty and faculty members would find it very difficult to teach outside of an institution.
- The institution tends to be managed through collegial participation of faculty in institutional administration. At the departmental level, faculty govern themselves to serve both their own academic needs and the needs of the institution. Higher-level administrators tend to be faculty members also, and myriad faculty committees participate in almost all institutional decision-making.
- Faculty members are compensated by the institution in which they work for the broad range of their activities on a salary basis, rather than by client, patient or specific output. As a result, the academic must be accountable to his or her students, peers and community, but does not generally provide a daily accounting of his or her time (as would a lawyer with a time log, or a doctor with an appointment book or schedule

of activity). Moreover, the tenure system provides the benefit of employment security as well as being essential to academic freedom.

- The goals of the individual academic have translated into the accepted institutional mission of instruction, scholarship, and service. Though this mission flows from the pursuits of each faculty member, the formation of an institutional community brings increased responsibility to perform in all three areas, especially in the service component which addresses students, peers, the institution, and the wider community. (This last becomes highly important in publicly-supported institutions.)

In a sense faculty do not work for an institution; they are the institution. Characteristics such as tenure and the relative autonomy of faculty are valued in the academic environment because they are essential to ensuring the intellectual freedom required to achieve the primary university goals of dissemination and generation of knowledge. Despite the close relationship between faculty and institution and the mutual responsibilities that it imposes, however, faculty members tend to remain independent professionals who work together toward common purposes. This continued independence and inner motivation, albeit within an institutional context, results in:

- the pursuit of a wide variety of activities which support both personal academic and institutional goals and growth, and the conduct of these activities at times and in places either predetermined by the nature of the activity (for instance, classrooms or laboratories) or most convenient to the individual; and
- a mistrust of performance and output measures which seem to second-guess the faculty members' own work approach, disciplinary needs and professional competence.

In short, the concept of faculty workload as a defined set of activities and outputs required to be performed by a faculty member in a given timeframe is in substantial conflict with the notion of an academic professional "way of life."

Needs of the Public Institution

An educational institution which is founded through and supported by public funds for public goals has great responsibility to fulfill the needs of its supporting community. It must also be accountable to the public in order to receive continued support. For faculty members, this translates into being accountable for the time and manner in which they work with the institution. Although such accountability is antithetical to the academic's sense of autonomy, it is a necessary fact of working for a public or a private entity. The accountability expected of a public entity may, however, be more visible to a wider constituency.

Faculty autonomy is further limited by the public institution's dependence on state or other public funding and the need to utilize those limited resources most effectively. The agenda for a public institution is set by many constituencies, a significant one of whom is the institution's faculty. However, external constraints or desires may well infringe on the ability of a faculty member (or a department or college) to pursue his own goals and to allocate resources as he would wish. Thus, the issues of faculty workload accountability and faculty resource deployment become critical realities at public institutions such as the University of Iowa, Iowa State University and University of Northern Iowa.

FACULTY WORKLOAD TERMINOLOGY

The foregoing discussion outlined the complexities inherent in the concept of faculty workload. Below, we define terminology, to provide a common understanding as well as illuminate further the limitations of the various terms. It should be noted here that, unless specified otherwise, discussion of norms in faculty activity and behavior refer to findings from secondary research involving national studies, not to findings resulting from this organizational audit study regarding Iowa faculty.

The term "faculty activity" can be used to describe the total range of effort that a faculty member can or does engage in as part of his or her professional

responsibilities. As will be discussed in this and the next chapter, those responsibilities span a great many activities, both formally assigned or expected, rewarded or unrecognized. Other terms may be used as substitutes for "faculty activity," but each has its limitations.

Workload

Faculty workload can be defined most simply and broadly as the amount of work a faculty member can be or is expected to perform. This definition is inadequate, of course: How is "work" defined? What measure is used to define "amount" of work? Are all faculty members defined and assigned work equally? Who determines the level of work "expectation"? How is performance evaluated - by quality of process or output, or by other quantitative measures? These questions will be addressed in the ensuing discussion of faculty workload.

The term "workload" implies a burden of responsibilities and activities which is carried at a given point in time. This concept is static, and may be formulaically imposed and measured. Actual faculty activity, on the other hand, is constantly changing in response to internal needs and external demands, and thus defies formulaic limits. However, this study will continue to use the term in its general sense where appropriate.

Work Assignment

Faculty workload has also been interpreted to mean "work assignment", which generally implies the number of classes or instructional responsibilities assigned to an individual faculty member. Sometimes the definition of work assignment may be extended to include the expected number and type of outputs resulting from a faculty member's research or scholarly efforts. Additional work assignments also might include advisement of a certain number of students or service on a certain number of institutional committees. However, the primary meaning of "assignment" entails classroom teaching activity, calculated by a variety of measures.

A faculty member's work assignment generally addresses only a portion of the total effort that a faculty member expends in his or her job. The wide range

of activities a faculty member performs is discussed in greater detail below. However, it should be emphasized here that even where the primary assigned responsibility is to teach, the work assignment of number of classes taught does not account for the time needed to perform all the responsibilities which support the teaching of a course, nor the various instructional settings which influence the actual amount of effort a faculty member must expend.

Both "workload" and "assignment" are commonly accepted terms in the higher education community to partially describe faculty activity. The terms are often misinterpreted, however, by observers who assume the definitions cover all faculty activity, and who therefore may question the demands on and work habits of a given faculty member based solely on knowledge of his or her course schedule.

Faculty Resource Deployment

A more useful term, which relates faculty activity to the strategic goals and resource constraints of the institution, is the dynamic concept of "faculty resource deployment". This term implies faculty and administrators working together to identify and utilize the most appropriate faculty resources in order to achieve specific stated individual, departmental, collegiate or institutional goals. Effective faculty resource deployment (or FRD) is predicated on understanding the full range of faculty work components as well as the differing demands, needs and opportunities within each department and across the institution. Faculty effort can then be allocated in the appropriate areas, and administered at the appropriate levels. The result is that trends and movement toward stated goals become the indicators of effective faculty utilization and planning at institutional and collegiate management levels. We will pursue further this FRD approach in Chapter IV of this study.

WORKLOAD COMPONENTS OVERVIEW

We have already introduced the concept of the three-fold mission - instruction, scholarship and service - pursued by most institutions of higher

education. In this report we add a fourth category of faculty activity, termed "professional practice" which is introduced below. These areas of activity encompass a multitude of faculty and administrative responsibilities, many of which may defy strict categorization in any one area. The working life of the academic professional is highly complex due to the various demands placed on faculty by the institutional mission, and the persistent, sometimes conflicting inner professional drive toward quality and personal fulfillment which most faculty seem to exhibit. The purpose of this study is both to elucidate the components of faculty activity within each area, and to highlight the difficulties in separating and measuring the complexity of faculty activities. The components of faculty workload are briefly introduced below.

Instruction

The majority of most faculty members' workload consists of those activities related to the delivery of "instruction". "Instruction" includes a wide range of activities, which depend on factors such as instructional setting, level of student, academic discipline, and so on. Further confusion can occur in attempts to categorize activities which are instructional in nature but not in a classroom context. For instance, many extension programs provide community support through instructional activities. Should these activities be included in instructional workload reporting?

Faculty teach students in a wide variety of environments, both in structured courses and in less structured settings such as research labs, clinics, and workshops. Measurement of these less structured activities is very difficult, and goes to the heart of the complexity in examining faculty workload. Measurement of structured instructional activity depends on the unit basis used to identify and record the assignment. A frequently-used measurement unit is a "faculty credit hour" (FCH), which identifies an instructional load by the number of academic credits assigned to each course taught by a faculty member in a given time period (e.g., semester or quarter). Other units of measurement, such as classroom contact hours or student credit hours, yield additional information regarding the effort required to accommodate a given workload, but may also create new problems in the comparability of data.

Scholarship, Research, and Creative Activity

"Scholarship," and related activities, encompass the area of workload in which a faculty member applies his or her academic expertise to expand the frontiers of a given field and produce an output which can be shared with and evaluated by his or her peers. Research or scholarly activity is the foundation upon which a faculty member may justifiably teach students and be in service to the community as an expert in his or her field. Scholarly activity informs a faculty member's ability to teach effectively and authoritatively. It is important to recognize that the quality of research activity and the quality of teaching are inextricably interrelated.

The manifestations of scholarship take different forms depending on which discipline the faculty pursue. For example:

- A member of the English department may produce a book of poems and a conference paper on Wordsworth's imagery;
- A member of the Electrical Engineering department may produce many short scientific journal articles on experiments in fiber optic technology; and
- A member of the Music department may produce two solo recitals and play with a visiting orchestra in an academic year.

The broad range of faculty scholarly output makes its measurement and evaluation very difficult at an institutional level. A typical measure of scholarly output for non-performance, non-creative disciplines is the number of articles published in peer-reviewed scholarly journals. Another is the frequency of a publication being cited in a citation analysis. Yet another measure used to evaluate scholarly activity is the level of grant-funded dollars received to sponsor specific scholarly projects. A standard distinction in this regard is between sponsored, or external, funding and unsponsored, or institutional, funding. However, these measures are not appropriate for all disciplines, and therefore may exclude scholarly productivity in some fields.

Service

"Service" encompasses a very wide range of faculty activities, in attempts to cover the balance of professional activities in which a faculty member must be engaged. Service activities can be broadly divided into three areas: institutional service, public service, and professional service.

Institutional service is expected of almost every faculty member as part of his or her contribution to the collegial management of the institution. These contributions generally include committee membership (for example, the Curriculum Committee, the Faculty Senate, an ad hoc Planning Committee), as well as intra-institutional consultation. Other institutional service contributions might include athletic or club coaching, student group advising, editing of publications published by the institution, and so on. The range of activities in this category is wide and varied. These activities are generally not counted in faculty workload assignments (except in rare instances) but they usually are of concern when assignments are being made or promotion/tenure evaluations are being conducted.

The level of public service faculty engage in generally depends on the mission of the institution, as well as the discipline of the faculty member. Examples of public service include working in a clinic which provides services to community residents, or offering workshops or in-service training to community residents through extension programs and the like.

Professional service entails service rendered to a faculty member's disciplinary peers. This is a somewhat nebulous category, but examples include:

- Editing scholarly publications;
- Reviewing articles submitted to publications; and
- Holding office in national or disciplinary associations.

Most institutions expect their faculty to provide a certain level of service in all three areas. Problems arise, however, with evaluation of and rewards for service. Provision of "release time", or a reduction in instructional expectations, for faculty carrying heavy institutional service

responsibilities is not unusual, but knowing where to draw the line in such cases can become difficult.

Professional Practice

"Professional practice" is a relatively recently defined category in the lexicon of faculty workload, one which is currently being used by Iowa State University in their promotion and tenure guidelines*. The activities which are included under this rubric have generally been allocated between instruction and service workload definitions. However, it is clear that certain major faculty responsibilities are conducted under different circumstances and for different audiences and purposes than those covered by the traditional three-part faculty workload approach. Thus, in this report we discuss "professional practice" as a fourth element of faculty workload, associated with service. Examples of professional practice activities which relate to instruction, research or service also flow through the discussions of those components, since professional practice reflects aspects of all three.

Professional practice activities involve those areas of faculty responsibility which require client contact and servicing, either in instructional contexts on or off-campus; in clinical or diagnostic contexts; or in other client service contexts. The academic endeavors which generally fall under professional practice are:

- Extension activity;
- Clinical work related to the medical, nursing, dental, veterinary or pharmaceutical disciplines; and
- Other fields such as library and statistical services.

*We are indebted to the faculty and administration at Iowa State University for introducing this component of faculty workload to us.

Teacher training programs might also be categorized as professional practice in some case.

In our analysis, we consider as professional practice only the faculty activities which involve direct client interaction and servicing, as well as preparation for instruction, demonstration or client care. Involvement in professional associations and general professional development activity is considered as part of "professional development".

Measurement and evaluation of professional practice activities pose unique problems. For example, the critical intertwining of instruction and patient care in the clinical settings of medical disciplines creates great difficulty in measuring either activity separately, and poses evaluation criteria problems in measuring the activities together. The "service to the community" component of extension programs as well as their non-academic settings blurs the line between service and instructional responsibilities.

Given the newness of the category faculty workload studies, further study is required of the category. The discussion in this report will remain limited. The component of Professional Practice will be included in the section on service.

Other Activities

Although most faculty professional activities can be categorized under one of the three mission areas or under professional practice introduced above, some activities defy easy categorization and therefore measurement and evaluation. Where, for instance, should the following activities be included:

- individual professional development;
- development of curricular innovations or new teaching methodologies and materials;
- off-campus consulting; or
- administrative paperwork?

It is clear from the discussion in this section that faculty carry a heavy, complex burden of work expectations. These activities will be discussed further in the next chapter.

ISSUES OF WORKLOAD ASSIGNMENT AND MEASUREMENT

A variety of issues impact on the assignment and assessment of faculty workload at the individual as well as the aggregate level. These issues are discussed below.

Faculty Work Week

Virtually all studies of the amount of time that faculty members work have shown that they work on average between fifty and sixty hours per week. Despite the sometimes marked differences in activities among various disciplines, these studies have shown that the average work week does not vary significantly from department to department or from institution to institution. The Board of Regents Faculty Activity Assessment Reports show that faculty members in the Iowa institutions fall also within this range.

In addition, studies indicate that the average work week does not change significantly throughout the academic ranks, and a number show the work week of full professor to be slightly higher on average. Average figures, however, tend to mask the fact that more extensive research on faculty work weeks nationwide indicate a range from 30 to 70 reported work week hours. Looking at this range, the Iowa institutions tend to fall at the longer work week end of the scale.

Given the range of activities faculty must perform and the current length of their average work week, it seems unreasonable to ask most Iowa faculty members to increase the amount of time they work. To ask them, however, to reallocate how they spend their time may be more successful. Indeed, this points toward the faculty resource development and deployment approach, where

academic managers work with individual faculty members in ways that support and encourage their particular strengths for the benefit of the institution. This approach is discussed further later in this chapter and throughout Chapter III.

Factors Influencing Variations in Faculty Activity

While the overall burden of workload carried by most faculty is constituted by the activities described above, variations in the specific type and level of work are influenced by a number of different factors. The presence of these factors makes the imposition of uniform expectations highly problematic with respect to faculty activity and output.

Disciplinary Clusters

The type of instruction, scholarship and service a faculty member engages in is determined to a large extent by the academic discipline under which he or she works. Faculty in the fine arts perform under significantly different circumstances than do faculty in the natural sciences, for example. The size and organization of courses, the nature and outputs of research or scholarly activity, the availability of external support funds and the expectations and opportunities regarding community service vary dramatically across different disciplinary clusters.

The culture and mission of each disciplinary area may vary, which influences its faculty performance and output expectations, and constrains attempts to compare faculty activity across disciplines. For example, faculty in the agricultural sciences are oriented strongly toward extension services and externally sponsored research, while faculty in the humanities tend toward broad instructional goals and institutionally sponsored scholarly activity. Institutional expectations and measurements of faculty workload need to take these disciplinary differences into account rather than impose a single set of standards throughout the institution.

Institutional Emphasis and Type

The mission and character of the institution itself creates different environments for faculty workload expectations. Although the various colleges and schools within an institution may pursue separate missions also, these still should work within the context of the overall institutional mission. For example, the workload expectations at a land-grant research university such as Iowa State might include a greater emphasis on community outreach extension and research which supports the state economy, while a university such as University of Northern Iowa would emphasize more heavily the teaching of undergraduates, and would have research and service expectations which support that mission.

Most two-year institutions expect greater teaching loads to offset limited activity in research or scholarly activity. The "quality" of an institution, as determined by faculty output and general prestige, also influences the degree to which instruction is balanced with research and service.

Academic Rank and Status of Career

Workload expectations and activity tend to vary across academic ranks, according to most studies. In general, an inverse relationship exists, where tenured full professors report the lowest teaching loads as a percentage of their total effort, while instructors report the highest. The type of instruction being offered also may vary by rank, with senior faculty more heavily involved in thesis direction, seminars and the like, than junior faculty. Although some studies find that all faculty spend approximately 25% of their time pursuing scholarly activities, others find that full professors tend to produce more scholarly output than lower-rank professors. However, in some instances full professors produce less as they become more heavily involved in administration. At the same time, junior faculty early in their career must devote a significant portion of their time to research and scholarly activity, since research more heavily than teaching in establishing their intellectual reputation in the general

scholarly community outside the university. Studies indicate that the more young faculty members publish in the first five years of their careers, the more they are likely to continue publishing throughout their careers. Faculty members must develop, early in their professional careers, the habit of scholarly output.

Individual Differences

Individual faculty members tend to try to spend more time and effort on those activities which they find most rewarding, to a large extent regardless of set workload expectations, according to research reported by Yuker in his 1984 monograph on faculty workload. This tendency is not unique to faculty, of course, as it may occur in any number of professions or occupations where the individual has a range of responsibilities and is relatively self-supervised. Faculty who report very long work weeks tend to spend a greater percentage of their time on scholarly pursuits than do those faculty who report shorter work weeks. Moreover, lowering instructional workload assignments in an attempt to stimulate more research has not been shown effective. Faculty who prefer instructional responsibilities tend to spend a similar percentage of time on instructional activities regardless of reductions in their instructional assignment. It should be reiterated that research and instruction are mutually supportive activities, and must be pursued in tandem in order to contribute most effectively to the university. Nevertheless, these findings imply that research productivity and commitment to instructional quality are based on personal commitment and motivation to perform rather than on external stimulus.

Difficulties in Quantifying and Setting Measures

Faculty workload as a concept is not particularly relevant by itself, but it takes on critical importance when it must be assigned, measured, and rewarded by institutional decision-makers. Capturing and quantifying the full range of faculty activities, given the foregoing discussion, poses a significant challenge to higher education managers from the departmental level to the

Board of Regents. Some of the difficulties associated with quantifying and measuring faculty workload are outlined below.

Instruction

Although "instruction" appears relatively distinct as a category, problems can arise in attempting to capture all faculty instructional activity, especially at a research university. For instance, how should independent study instruction be measured? How should academic advising for course-enrolled students be categorized? Should the time that professors work with their graduate students who are helping them with their research experiments be considered instruction or research? How can the efforts of a professor who lectures on English literature to an auditorium of 300 students be compared to those of the professor who conducts a seminar with ten students in short fiction writing?

The various units used to measure instruction - faculty credit hours, student credit hours, or contact hours - each provide different information which may be used for different purposes. These are discussed in detail in the next chapter.

Research and Scholarly Activity

Several problems are associated with capturing faculty research and scholarly activity. The most significant one is that the comparability of scholarly activity is limited by the variety of scholarly outputs across disciplines.

- The fine arts and letters disciplines consider as scholarly output the various creative work of their faculty, such as musical compositions, artwork, poetry or fictional works, and so on. Peer evaluation of these works is considered critical to measuring productivity, so that exhibitions and reviews are often considered truer measures of quality output than the physical product alone, or the volume of output.

- In fields other than fine arts and letters, published articles in peer-reviewed journals are considered most favorably as productive research, generally followed by scholarly books and monographs, papers presented at scholarly conferences, textbooks, and articles published in non-scholarly publications. Other measures include the number of grant applications submitted and funded; the level of funding dollars awarded; and the number and types of fellowships received, such as Fulbright or Guggenheim.

Problems arise when scholarly productivity is compared across disciplines in order to determine workload standards or make reward and resource allocation decisions. How many articles should equal a concerto? If a Philosophy faculty member publishes a scholarly book interpreting Plato's Dialogues after five years of work, how should that faculty's productivity be compared to a Biology professor's six related articles on genetic mutation over the same period? The difficulties become obvious.

Service

Service is the most difficult area of faculty workload to measure and reward, and therefore is often left out of stated workload assignments.

- Institutional service is an expected part of every faculty's workload, to a greater or lesser extent. Almost all faculty serve on at least one or two committees, as a part of the collegiate governance structures typical of higher education. Difficulties arise in measuring and comparing the actual effort expended working on one committee versus another. In obvious cases, such as a committee formed to work on a limited-term, intensive project, release time from some instructional responsibilities might be granted. In general, however, faculty often note that the committee work they perform is not considered part of their identifiable workload, and that during periods of heavy committee responsibilities their workload can become onerous.
- Professional service is also difficult to evaluate and therefore is usually excluded from workload assignment. Appointment as editor of a

prestigious journal or as president of a well-known association may accrue benefits to the appointee through release time or indirect prestige to the institution, or possibly merit recognition or favorable tenure consideration. Otherwise, professional service is considered a personal faculty decision which may be viewed as professional development, reputation-building or otherwise providing personal reward.

- Public service is easier to measure and assign if it is part of an extension or community outreach program. Faculty who provide workshops and training courses in these programs are compensated for their work, and sometimes are assigned percentages of their time which should be devoted to public service. Otherwise, public service activity which is not organized through the institution is difficult to capture as part of an assigned workload, and is unlikely to receive acknowledgement from institutional administration.

Professional Practice

A discussion of measurement difficulties regarding professional practice activities is premature in this context, given the newness of the category. Some of the difficulties regarding evaluations of clinical and extension activities have already been mentioned and will be discussed further in the following chapter.

The Question of Quality

The question of how to identify the quality as well as the quantity of a faculty member's efforts becomes essential, if workload is to be assigned, measured, and evaluated as part of an institution's need to effectively deploy its faculty resources.

- Evaluating the quality of instruction provided by an individual faculty member is a difficult but vital challenge. Stories abound of professors who appear to lecture from old notes and otherwise avoid student

contact. On the other hand, most faculty whom we interviewed at Iowa's three institutions named teaching and working with students as the part of their job they enjoyed most. Even defining what is meant by "quality" instruction is problematic.

A few different measures are used to try to capture the quality of faculty teaching. Student evaluations are a widely-used feedback tool, yet variations in their format, administration, and response rate all can skew the results. In addition, students may evaluate behaviors rather than results or otherwise interpret inappropriately the purpose of the evaluation. Periodic peer observation reviews may be helpful, but they are time-consuming and difficult to manage. They also can only evaluate teaching performance on the day of the review. Other types of peer evaluations may involve review of course syllabi, reading lists or examination materials, or the joint teaching of courses, and so on.

- With regard to research and scholarly activity, difficulties arise in attempting to evaluate the quality of scholarly outputs, whatever form they may take. In the case of scholarly articles, the number of citations in other scholarly work is sometimes used as a measure of quality. Awards and prizes for creative work are also used as measures of quality. The number and size of research grants awarded may sometimes be considered quality measures, but these in fact may measure the quality of the proposals and the reputation of the faculty member more than the research outputs themselves.
- A more fundamental problem with evaluation of research may arise for those faculty who are investigating new fields of study. The purpose of faculty doing research is to expand the boundaries of knowledge. There is always a dynamic tension between the "canon" of description and emerging ideas. A faculty member on the forefront of knowledge may not have a large peer group and indeed may be evolving new concepts which clash with the "canon" accepted by the department. These kinds of issues and concerns arose in many institutions in the seventies with the advent of women's studies and black studies. Today there has been an

attack on the "western" centered nature of our education. Changing intellectual and educational fashion, along with difficulties in evaluating new scholarly fields, thus make assessment of research quality more difficult.

In the next chapter, we will examine the components of faculty workload in greater detail.

CHAPTER II

COMPONENTS OF FACULTY WORKLOAD

In this chapter, we outline in greater detail the components of faculty workload. Our goal in this discussion is to highlight the complexity of faculty activity and emphasize the care with which any measurement of faculty workload must be approached. The uses of such measurement is discussed in Chapter III.

This chapter contains three sections. The first section discusses the nature of instruction, its varieties and related activity, its measures, and the factors influencing differences in faculty instructional activity. The role of graduate teaching assistants as it relates to instructional workload is also discussed.

The second section addresses research, scholarship and creative activity. It defines the three terms and discusses the nature of outputs, and the factors that influence differences in faculty activity in these areas. A discussion of the role of graduate research assistants is also included.

The third section of this report focuses on service and professional practice activities of faculty. These include institutional service, public service, and professional service. Professional practice activities entail the direct client interactions and responsibilities which are conducted by faculty either on or off-campus in "professional" fields or contexts. We discuss the role of these activities on (and off) campus and the issues involved in measuring and evaluating a faculty member's service and professional practice activities.

At the end of each of the three sections in this chapter we present some faculty "profiles" to illuminate the points raised in the discussion. These have been developed from interviews conducted with various faculty members at each of the Regents institutions. The profiles are unattributed by name or institution, although they reflect actual individual experience. They are not intended to represent an "average" experience or focus on unusual faculty. Rather, our aim with these profiles is to illustrate the distinctive qualities

of every faculty member's work life and to display the diversity of faculty at the Regents institutions.

OVERVIEW OF CLASSIFICATION

It is difficult to develop a taxonomy which can appropriately categorize all faculty activity. However, classifications and definitions must be consistently understood and utilized if workload is to be appropriately measured and assigned. We have divided faculty activity, for the purposes of this study, among the three broad mission areas: instruction, scholarship and service. Most workload studies use six or seven categories, somewhat similar to those used for the Regents FAAR report. There is a tradeoff between comprehensiveness on the one hand, and simplicity on the other. No taxonomy is likely to completely serve both these needs. Although our activity classification, illustrated in Exhibits 1 through 4, enables us to discuss the range of faculty activity within a basic framework, it may not be best suited for actual workload data collection. Nevertheless, we will use the classification outlined in the charts as guides in the ensuing discussion. Exhibit 1 provides an overview of the workload component framework used in this chapter.

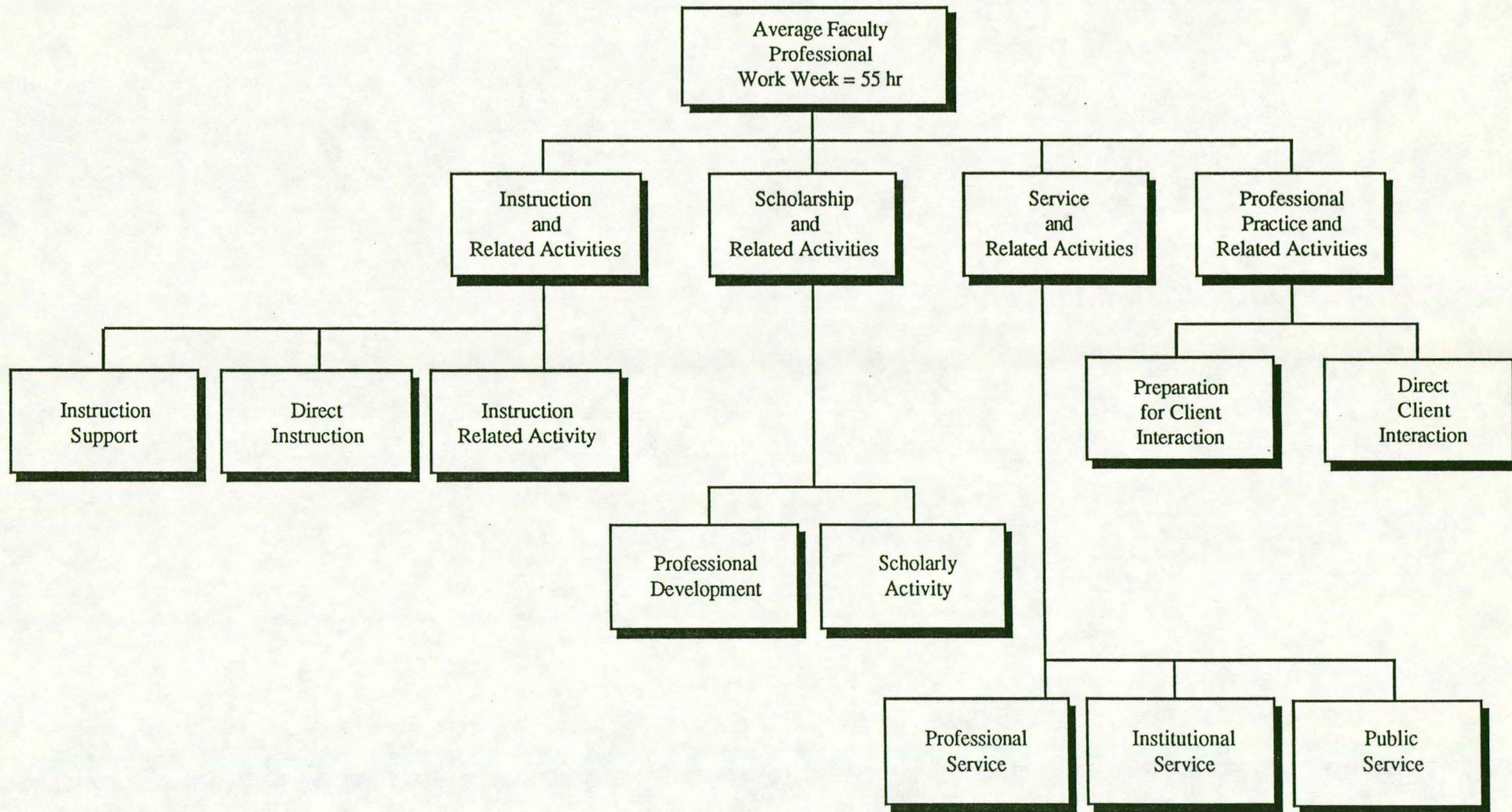
SECTION 1: INSTRUCTION

"Instruction" covers the majority of most faculty activity, and generally occupies the majority of most faculty members' time. As shown in Exhibit 2, instruction can be broken down into activities related to direct instruction, instruction support through preparation and evaluation, and instruction-related advising activity.

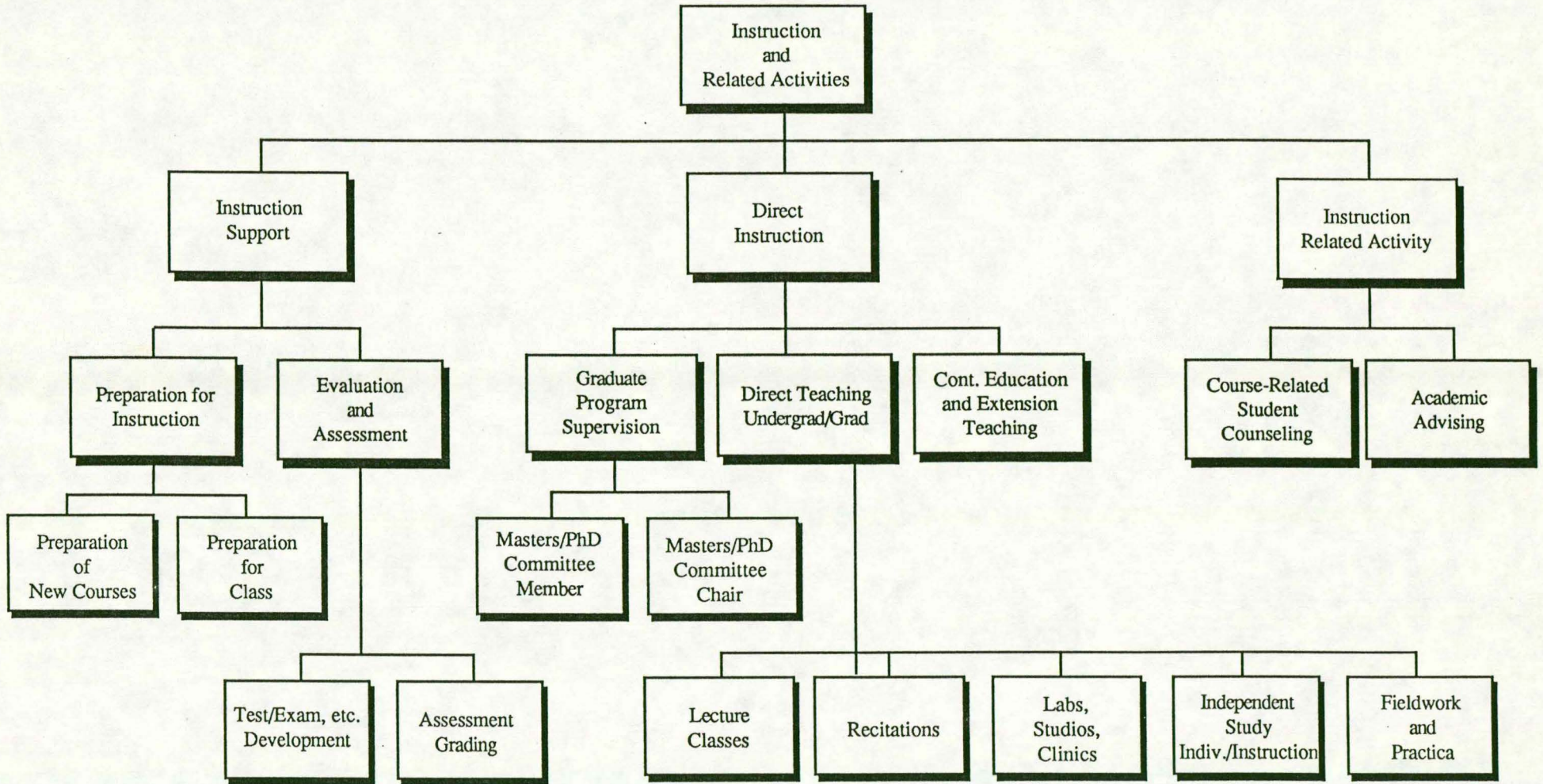
Direct Instruction

Direct instruction relates to actual student contact and teaching activity. While this would appear to be a relatively simple definition, faculty actually engage in many different forms of direct instruction.

FACULTY WORKLOAD ACTIVITY CHART: OVERVIEW



FACULTY WORKLOAD ACTIVITY CHART:
INSTRUCTION



Undergraduate and Graduate Coursework

Direct teaching of coursework to undergraduates and graduates differs in its characteristics and effort required depending on the form of instructional delivery:

- Lectures: Lectures entail teaching a large or small number of students in a regular classroom setting, with little feedback or input from the students. Lectures are the least limiting instructional mode with regard to the number of students who can be effectively taught. Undergraduate lectures, especially at the lower levels, tend to be larger classes, although size of class does not necessarily equate to degree of teaching effort required or to quality of instruction.
- Recitations: These are the smaller, more discussion-oriented instructional settings often associated with lectures or offered as seminars. The focus of the course is generally on exchange of ideas stimulated by outside study.
- Laboratories, Studios, Clinics: The instructional effort required for these types of courses differs sharply from those for lectures or recitations. The class may be somewhat structured with partial lecture from the faculty, or it may be guided individual work, with the faculty acting as problem-solver and evaluator. The class hours may be long, but space and materials limitations may require small class sizes, often with multiple sections. Clinics are unique instructional settings, where the faculty and students may be performing services to clients while teaching and learning at the same time.
- Field Work, Practica: Courses which incorporate student teaching or other types of practica require unique degrees of instructional effort, since the faculty member must often travel to the field site, observe and advise the student, and provide constant feedback. The student learns by working, by direct experience and by contact with the faculty member. The number of students who can be taught in a given course may

be limited either by the type of fieldwork or the time and effort limitations on the faculty.

- Independent Study, Individual Instruction: Courses which are structured on a one-to-one faculty-student basis require effort of a different kind from those outlined above. Regarding independent study, the faculty may develop the curriculum with the student. Individual instruction such as music lessons requires intensive attention during the class period, but may entail less course-related work outside.

Graduate Program Supervision

Faculty work entailing supervision of graduate students in preparing a masters thesis or doctoral dissertation is also categorized as direct instruction. The activity involved clearly differs from that required for organized course instruction; it also varies depending on whether the faculty is a member of the supervisory committee or its chairperson.

- Committee Membership: Service on a committee supervising the creation of a masters thesis or doctoral dissertation requires sporadic advisory activity during the research and writing period, and intensive effort during the reading and evaluating of the completed work. Some faculty may enjoy and be more effective at this type of instruction, and therefore may devote greater effort to it.
- Committee Chair: Significant work is generally required for chairpersons of thesis committees, especially during the planning of the project and the writing phase of the project. The chair is the student's primary advisory and feedback resource for his or her degree work. Faculty often mention the extensive amount of time they may spend with a candidate who is having trouble with a project.

The research supervision of graduate students may also require instructional time related to various types of research projects which are not directly related to the generation of academic credits. The supervision of post-doctoral student research, which seldom produce

academic credit hours, is also an important part of overall "instructional" responsibilities.

Continuing Education Instruction

A third category of direct instruction involves teaching responsibilities related to continuing education or summer institute programs. The inclusion of this type of instructional activity in a faculty member's assigned workload may depend on the type of appointment held. The work may be assigned as an overload responsibility, with or without additional compensation, or it may be an expected part of the faculty member's workload. Continuing education responsibilities might also be categorized as professional practice in some cases.

Level of Instruction

The effort required in direct instruction varies not only by delivery mode, but also by the level of instruction. The generally accepted approach to this issue distinguishes between courses aimed at the following student groups:

- Undergraduate lower level, or entry-level;
- Undergraduate upper level, or advanced level;
- Graduate at the master's level;
- Graduate at the doctoral level; and
- Graduate at the professional level.

Some of the differences between instruction at each level have been introduced above. Undergraduate lower level courses (UG1) are often large lecture courses with sectional recitations, although this may not be the case for foreign language instruction or other contact-intensive subjects. Undergraduate upper level (UG2) and graduate master's courses (G1) may tend toward smaller classes or seminars emphasizing more sophisticated analysis of course subject matter and much more active dialogue between faculty members and students. Graduate doctoral courses (G2) may become more individualized, with the professor and student working together on similar problems. Graduate professional instruction

(G3) varies substantially depending on the field of study. Instruction for the medical-related professions (medicine, veterinary medicine, dentistry) is generally in a clinical context with some lecture instruction. Other fields, such as pharmacology or law, have different instructional characteristics.

Instructional Support

While direct instruction may be the most visible aspect of instructional activity, it is supported by a number of other critical activities. These "hidden" activities constitute a major part of a faculty's teaching responsibility and must also be considered part of instructional workload.

Preparation for Instruction

Faculty spend varying amounts of time preparing for class or other direct instruction, depending on a number of factors. Substantial time, however, must be devoted to preparation in order to provide an adequate level of instructional quality.

- Preparation for Classes: The time spent on preparation for a given class, or course, depends on the number of times the faculty member has previously taught the course, the degree of "updating" he or she must or wants to incorporate, and the specific requirements of the syllabus. A traditional rule of thumb has been two hours of preparation required for every hour of class, although the validity of this assumption has not been established in faculty workload research, according to Yuker, since instructional content and context can vary so widely.
- New Course Preparation: Preparation of a new course may take extensive periods of time, since background study must usually precede development of the syllabus, reading list, lecture material, assessment approach, and so on. Faculty frequently utilize "non-work" time, such as summer months, to prepare new courses. This effort is not generally included in instructional workload assignments.

Evaluation and Assessment

Evaluation of student learning is another "hidden" area of instructional responsibility which can often consume substantial amounts of time. The invested effort tends to be cyclic, around exam periods, although this varies with the type of assessment instrument used for the course.

- Development of Assessment Materials: This effort may be minimal in cases where essays and term papers are the means of assessment, or where standard tests are used year after year. Courses which require, or instructors who prefer, new tests frequently clearly require greater investments of time and effort. Additional effort may be involved if problem sets, lab tests, quizzes and so on are utilized. Mitigating factors include the specific discipline and the personal motivation of the instructor.
- Assessment Grading: Effort required on the part of an instructor to grade reports, tests, papers, and so on, or otherwise evaluate his or her students, varies widely depending on the type of assessment used. Essay exams and paper assignments are easy to development but extremely time-consuming to grade. Tests and exams administered to large classes are often graded by departmental or course graduate teaching assistants rather than the instructor. Courses which perform assessment through field observation and one-on-one feedback may require a major portion of the instructor's time to be spent on assessment.

Instruction-Related Activity

Course-related student counseling and other academic advising are faculty activities which are associated with instruction and may therefore be classified under the general area. However, advising assignments are often considered part of a faculty's service responsibilities as well. Faculty activities such as advising contribute to the problems institutional administrators face in attempting to measure faculty workload.

Course-related Student Counseling

Most faculty schedule office hours during which students may discuss issues or problems related to their coursework. This clearly is a form of instruction, but inclusion in workload and measurement of the time and effort required is problematic. One problem might be how a faculty member who schedules and attends to office hours, but who is not visited by any students, should categorize office time.

Academic Advising

Faculty frequently have assigned advising responsibilities to help students with general academic and course of study questions. This activity may be included under instruction, given its academic focus, or it may be assigned and measured as part of faculty service expectations. General academic advising is often cyclic, occurring primarily around registration periods, and also varies by the level of the students being advised, whether lower or upper undergraduates or graduates. Difficulties in assessing the amount of time spent in advising students may be difficult, since students may initiate discussions with faculty more informally or in conjunction with other discussions.

Measurement of Instructional Activity

Instructional activity, as it relates to coursework, is the clearest and therefore the most widely measured component of faculty workload. Measurement can often be derived from the institution's registration system, so institutional researchers are able to collect and analyze instructional activity information. However, this kind of information can only address the time (and somewhat the degree of effort) a faculty member puts into direct, credit-generating instruction. It cannot address the load of "non-credit" instruction which has been alluded to earlier, nor the issue of the quality of instruction. This issue of time versus effort versus quality is an important one to address when studying faculty workload, but a difficult problem to solve. A few approaches to measuring the quality of instruction were noted in Chapter I. The measurement of "non-credit" instruction poses different

problems, and must generally rely on self-reported data or assumptions based on experience regarding the instructional effort required for various activities.

Different measures provide different perspectives on the degree of effort required for a given direct, credit-generating instructional assignment. A variety of measures are available, but each one has its limitations.

Number of Courses per Period

This is a very rough measure of instructional assignment which provides the number of registered courses an instructor is responsible for during a semester, quarter, or other academic time period. One resulting problem is that faculty who work under different academic calendars may not be comparable. In addition, the delivery mode, course enrollment, and level of instruction all impact on the degree of effort required but are not reflected in this measure.

Contact Hours

Contact hours as a measure refer to the total number of hours a faculty member spends in direct instruction during a calendar week. For example, an art instructor may conduct two UG1 drawing classes which each meet three hours a week, plus a UG2 life study studio course which meets four hours a week, total weekly contact hours equaling ten hours. This measure is considered most favorable to disciplines which offer lower-credit courses with limited student enrollment and a high degree of individualized instruction (these types of courses are frequently found in the fine arts). However, it does not reflect any "effort" information such as the assumed difficulty of the course material (implied by the number of credits assigned), or the number of students in the class.

Faculty Credit Hours

Faculty credit hours (FCH) are calculated as the sum of the number of course credits an instructor is responsible for in a semester (quarter,

etc.). They are frequently used as measures of instructional workload input, meaning the degree of effort a faculty member puts into instruction. For example, a faculty member who teaches three 3-credit courses in a semester has an FCH of 9. Problems may arise in ascertaining the equity of different instructional loads using FCH if the credits assigned to a course do not reflect the amount of work it actually requires. FCH also do not reflect the level of student enrollment as a contributing factor to workload.

Student Credit Hours

Student credit hours (SCH) are an instructional output measure, since they include the student load in the instructional effort. For example, a faculty member who teaches three 3-credit courses with 20 students enrolled in each has an SCH of 180. An instructor who teaches two 4-credit seminars with five students each, and one 4-credit independent study has an SCH of $40 + 4 = 44$. Although the student load information in this measure is valuable, it may lead to unfair comparisons between high-enrollment and limited-enrollment courses (or high-credit and low-credit courses) which might actually require similar faculty effort to conduct.

Unique Preparations

This measure addresses the number of times a faculty member must prepare for a given course. For example, a faculty member who is assigned three sections of an introductory accounting course has one unique preparation as part of his or her semester instructional workload. A faculty member who is assigned three different marketing courses on product management, services marketing, and marketing strategy, must prepare different syllabi, lectures and other class materials for each course, and thus has three unique preparations. This measure is important to consider as a balancing factor when assigning and comparing workloads.

Use of Graduate Teaching Assistants

Graduate teaching assistants (GTAs) may be used in a variety of ways to support instructional faculty, which influences the faculty member's workload. Such use must be accounted for when measuring and assigning instructional load.

- Grading: GTAs may be used by individual faculty or departments to help grade problem sets, tests, papers and so on.
- Laboratory/Studio Setup: Courses which include a laboratory or studio component, particular large courses with multiple sections, often utilize GTAs to set up the lab or studio for instruction. Sometimes GTAs are also used to supervise the lab, and help students with problems or questions.
- Instruction: GTAs may also be used to help a faculty member with direct instruction; for example, a faculty member may lecture to a large UG1 class, while GTAs conduct the recitation sections.

Apart from possible instructional quality concerns, use of GTAs may pose problems in measuring instructional workload if their use is not taken into account. Apportioning the FCH or SCH for a given course between the professor who is lecturing and the GTAs who are teaching recitation sections is one approach to solving this problem.

The availability of graduate assistance to instructional faculty may provide benefit to the institution as well as the individual faculty. Faculty may be more attracted to a university where strong GTA support is available, since more mundane instructional responsibilities may be delegated to them, thereby allowing the faculty member to concentrate on more substantive intellectual efforts. The grading of exams and running of laboratories are time-consuming activities which can be handled effectively by GTAs with the proper supervision.

Instructional responsibilities, such as leading recitation discussions or even teaching course sections, demand more skill and effort on the part of the GTA and more supervision and feedback from the faculty. However, many GTAs are preparing for academic careers, and may need and wish to gather experience as an instructor in their chosen field before seeking a tenure-track position. Moreover, the utilization of GTAs may be a positive experience for all members of the university community, since the student body often benefits from smaller discussion classes, and lively exchange with a scholar closer to their own experience. The institution must carefully weigh these issues with its commitment to instructional and professorial quality.

Factors Influencing Variations in Instructional Workload

A multitude of factors influence the definition, assignment and measurement of instructional workload. Each factor alone and in combination should be considered when evaluating workload. Some major factors are outlined below.

Institutional Character and Mission

The character of an institution - whether it is a four-year research university or a two-year community college - and its mission - whether it focuses on undergraduate education or graduate education or both - provide a basis for instructional workload expectations throughout the institution. For example, teaching expectations may be higher at a university that wishes to attract a strong undergraduate body, while another university seeking a heavier research commitment may reduce the amount of teaching it requires of its faculty. In these cases, the institution's overall mission has guided administrators toward certain patterns of instructional workload assignments.

Academic Discipline

The varying natures and needs of different academic disciplines have a critical impact on the ways instructional workload is assigned and measured. It is at the disciplinary, or departmental, level that individual faculty are assigned instructional responsibilities and are

evaluated on their teaching performance. The instructional workload carried by a professor of chemistry is clearly different from that carried by a professor of sociology, in the type of material taught, the type and amount of assessment, the preparation needs, and so on.

The discipline in which the course is taught may also have a substantial impact on the reality of the workload as opposed to the means by which it is measured. For example, a UG2 practicum course taught by an Elementary Education professor may require extraordinary amounts of instructional time in lecturing, observing, advising and evaluating, although the 3-credit course has only ten students. Interdisciplinary comparisons must therefore be well-informed of the instructional conditions and requirements of the various disciplines.

Instructional Delivery Mode

Appropriate methods of measurement and balancing of instruction activity assignments require a good understanding of the different instructional modes and the effort they each involve. The previous section describing these modes highlights the differentiating factors.

Class Size and Course Level

Workload differences arising from these factors have already been introduced. For example, in a discipline like accounting or biology, large introductory courses may be called "service" courses, because the UG1 level is a prerequisite for students who wish to major in a variety of other disciplines. The accounting department may thus teach large classes and show very high SCH measures, but the faculty member may need fewer unique preparations, lecture from fairly standard material, and utilize GTAs to teach sectional recitations and grade exams. On the other hand, a faculty member in art history may devise new museology and aesthetics courses and conduct all work for the two classes of ten students each, thus yielding much lower SCH. The observer must understand the reasons why measurement differences such as these occur.

Academic Rank and Gender

Instructional assignments generally vary inversely to the rank of the tenured and tenure track faculty member, with instructors and assistant professors carrying heavier instructional loads than associate professors and professors. This is not always the case, however, since the instructional goals of the institution to provide quality teaching may work against the trend. Departmental administrators may also assign fewer instructional responsibilities to junior faculty in order to provide them an opportunity to develop research programs related to their total scholarly development. Non-tenure track faculty, such as adjunct and other term-appointment professors, tend to carry workloads that are primarily instructional, since they do not face the research expectations associated with tenure. Although little study has been done on workload differences attributable to gender, preliminary examinations reported in Yuker have shown a slight tendency for women to carry higher instructional loads than men, and to be clustered in the lower faculty ranks. The causes of these differences are not clear, and cannot be conjectured in this report.

Individual Preferences and Strengths

Individual preferences as well as perceived strengths also may influence the instructional workload assignment. Faculty who are considered very fine instructors, or who actively enjoy and seek out teaching opportunities, are often recognized as such by departmental administrators and assigned coursework accordingly. The other factors outlined above, a necessary level of balance in a faculty's overall load, mitigate against workload assignment driven by individual choice. Nevertheless, faculty preference has been shown to be a significant indicator of workload.

Team Teaching

Many disciplines offer introductory and survey courses through utilizing a team of instructors with varying fields of expertise. Instructional workload associated with this arrangement can range from preparing and

delivering one or two lectures, to coordinating the organization, teaching and evaluation of the entire course. Typically, workload "credit" for this kind of course is apportioned to the various participants based on their percentage of effort relative to the total required. Any of the measures identified above might be distributed across a team of instructors.

In general, it is at the departmental level that administrators face the challenge of balancing instructional assignments in the face of course coverage requirements, levels of faculty strengths, faculty interest and expertise, the need to maintain a necessary balance in a faculty member's overall load, and myriad other complicating factors. It is not necessary nor appropriate that administrators at levels above the department be informed at the level of detail required to consider instructional assignment decisions, except in the case of unusual problems or issues. Moreover, the disciplinary characteristics of faculty workload make it difficult and of questionable validity, to collect meaningful data on workload at more aggregated levels of the institution. Where such collection and analysis is desirable, the limitations of such effort should be kept in mind.

Iowa Faculty Profiles: Instruction

The following passages are brief descriptions of actual Iowa faculty experiences as they relate to instruction. Many of the activities and issues discussed in the previous sections are illustrated in these profiles. Moreover, the profiles reveal the types of distinctive challenges that every faculty member faces in his or her instructional responsibilities.

1. Dr. Beta is a professor of Information Management. His teaching load is nine credit hours per semester. He typically teaches a seminar using case analysis to 15 graduate students. Thirty upper division undergraduates comprise Dr. Beta's lecture class. On the average, Dr. Beta spends three to four additional hours weekly with a number of his 75 student advisees.

Student evaluation makes up approximately 1.5 hours per undergraduate student per semester and 2.5 hours per student for graduate students. Preparation time for each class hour demands approximately one hour outside of class. In putting together a new course, he estimates he

spends 15 to 20 hours in preparation time per week during the first year of a new course. That time requirement drops to eight to ten hours during the second year and two to three hours per week in the third year of teaching a course.

2. Dr. Zeta is a tenure-track associate professor of Architecture. As a junior faculty member, Dr. Zeta was hired on a 100% teaching appointment (although he is still expected to produce scholarly output). He teaches 12 to 15 course credit hours per semester. He teaches Introduction to Architecture to 600 students with three other faculty members. His other, newer classes (covering subjects in building materials and specialized building design) all accept from 20 to 60 students. His classes are taught in both a lecture and recitation format.

High demand for new courses has required him to work about forty hours per week putting new courses together. Currently, he spends between 10 to 15 hours in basic class preparation per course prior to the start of the semester. He also spends 10 to 15 hours in student evaluation per week for either two or three courses. He advises course-matters frequently during studio periods. While TAs help with grading the multiple choice exams, he spends considerable time grading individual projects himself.

Dr. Zeta is particularly fond of informal student contact. He estimates that his open-door policy results in him spending fifteen hours weekly advising students. Much of this time is spent at home nightly, taking calls from students. As a liaison with the honors program, he advises six honors students. During registration, he spends twenty hours helping them make class selections.

3. Dr. Eta, associate professor of Chemistry on tenure-track, teaches both undergraduate and graduate courses. Typically, faculty members teach one course per semester in his department. Some may teach two with specialties in the basic undergraduate chemistry course. He generally teaches Quantitative Analysis to 80 to 100 sophomores, which includes both lecture and lab sessions taught by TAs, whom he supervises. In his graduate electro-chemistry class he teaches 15 to 25 students in two lectures each week.

Typically, he prepares five hours a week prior to teaching an undergraduate course and 15 to 20 hours prior to each graduate course. When teaching a new undergraduate course he estimates spending 10 to 15 hours preparation before each class period.

Students are free to visit his office hours every afternoon and the time spent doing this frequently varies from one hour to more when more course-related questions arise.

Although TAs grade weekly quizzes at the undergraduate level, he spends one to two hours per week on evaluation.

At the graduate level he frequently spends at least three to five hours grading student presentations.

4. Dr. Delta is an adjunct assistant professor of English. He teaches three courses per semester and one to two courses each summer. As English co-instructor in a non-English department, he meets with two sections of engineering students eight to ten times per semester to teach basic writing skills for technical reports. He offers this instruction beyond his required three course load.

Dr. Delta teaches three sections of technical writing skills and also an introductory literature course. He prepares one to two hours for each writing course period and three to four hours for each literature course period. He spends about six hours weekly advising on course-related matters. Each student also receives two tutorial sessions for a total of 96 hours of advising on course matters.

He estimates spending 70 to 80 hours grading assignments and 45 to 50 hours grading major course projects for a total of 115 to 130 hours of student evaluation per semester.

5. Dr. Pi is an assistant professor of Art. His teaching load is nine credits hours. Dr. Pi holds a temporary position (two years) on a non-tenure track. He teaches ceramics and non-major studio courses to both graduate and undergraduate students. Due to space limitations, only 10 to 20 students can participate in each studio class. Class preparation takes six hours each week. Preparation for an entirely new course requires 50 hours and one semester's notice. Dr. Pi provides flexible advising for two to three hours, four days each week. He maintains an open door advising policy due to the self-paced nature of learning in his classes. Dr. Pi welcomes ongoing feedback from his students. He also advises art dissertation students, as required.

SECTION 2: SCHOLARSHIP, RESEARCH AND CREATIVE ACTIVITY

While instruction may be the most visible faculty activity, scholarly activity is also fundamental to the concept of the academic profession. Scholarship, research and creative activity not only provide the base of expertise from which a faculty member imparts knowledge to students and other "learning" populations; they also serve to expand the edges of knowledge for society as a whole, preparing us for and introducing us to the future.

Scholarly output is highly important to faculty and their institution for three additional reasons. First, the scholarly production of its faculty plays a large role in the prestige a university can attain. Second (and related to the first), a faculty member's own career success depends heavily on his or her ability to both develop and gain recognition for new knowledge.

The choice of "publish or perish" with respect to tenure and promotion is only somewhat simplified. With the rising need for additional resources, universities (including the Regents institutions) are looking to their faculty to attract more sponsored dollars to support research activity, and thus release institutional funds for use elsewhere. Lastly, the quality of a university's research and scholarship may play an important role in stimulating regional economic development, through the attraction and development of related business activities.

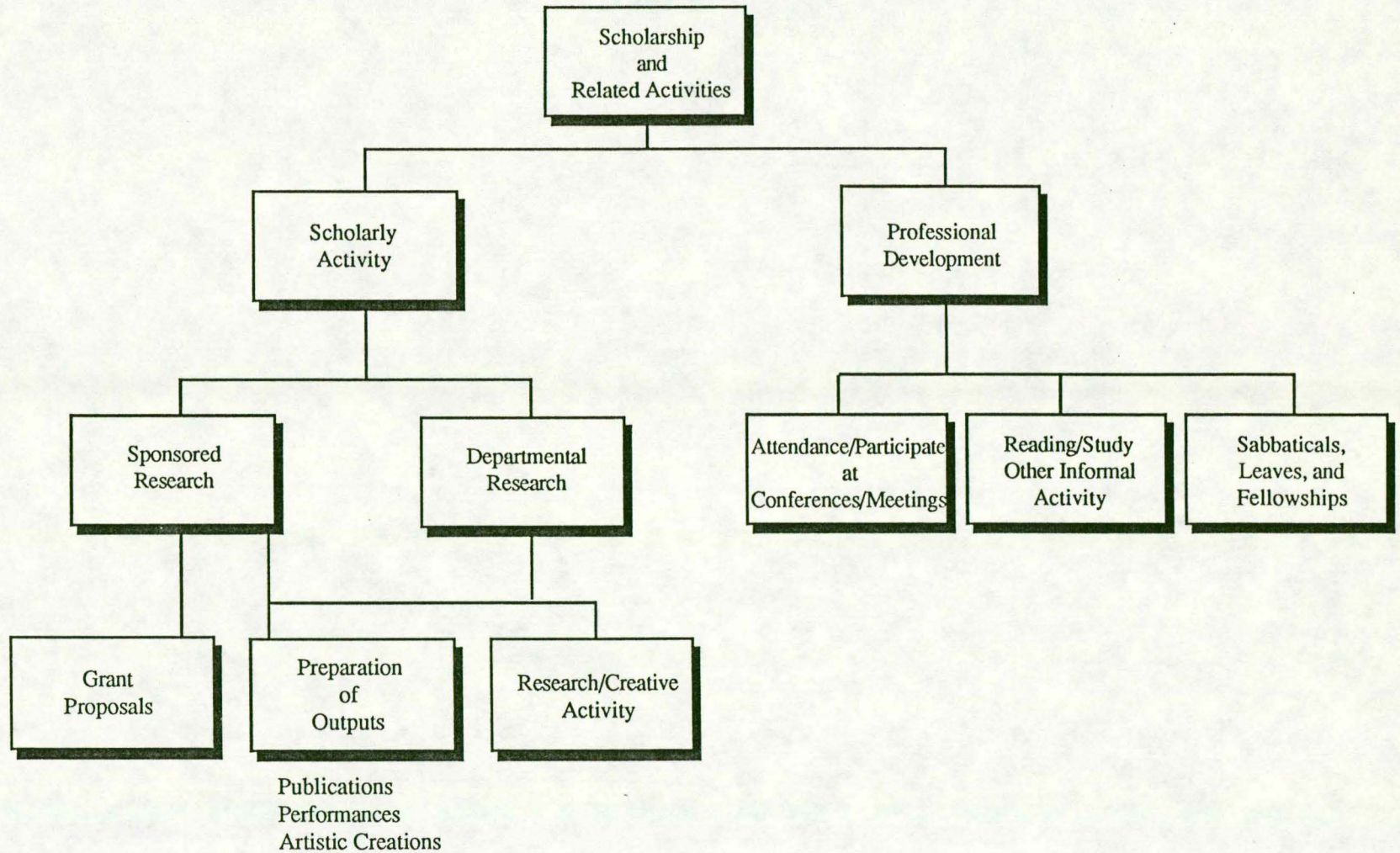
A number of problems arise when institutional administrators attempt to measure scholarly output.

- The definition of "output" differs significantly across disciplines, and attempts to correlate different outputs face many difficulties.
- Research and creativity yield results at different rates in different disciplines, which gives rise to the question of whether faculty scholarly activity can or should be evaluated before outputs are produced.
- Measurement of defined outputs is relatively simple when only the quantity is evaluated, but becomes more difficult when the quality of the scholarship must be assessed.

Faculty workload decisions regarding scholarship expectations and measurement must bear in mind the issues raised above if scholarship is to be fairly and appropriately evaluated.

In Exhibit 3, scholarship is shown to include two major components: scholarly activity and professional development. In this taxonomy, professional development has been associated with scholarship because the line between general faculty learning and specific research inquiry is often unclear. However, this association is not typical in workload studies; in fact, professional development is seldom included in workload assignments. The definitions and associated issues for these categories are outlined below.

FACULTY WORK LOAD ACTIVITY CHART: SCHOLARSHIP



Scholarly Activity

Scholarly activity is expected of most faculty members, but generally not assigned per se at the departmental level. The direction and output of scholarly activity is usually determined by the strengths and preferences of the individual faculty member as an expert in a particular field.

In his 1984 report, Yuker outlines the range of faculty activities which are considered part of scholarly effort. These include:

- Scientific experimentation;
- Conducting field research;
- Supervising research staff;
- Reading and observational research activities;
- Writing scholarly articles, monographs or books;
- Painting, artwork or creating literary, dramatic or musical works;
- Rehearsing for performances;
- Practicing athletic skills (for physical education faculty);
- Developing grant proposals or applications for funding; and
- Discussing research with colleagues.

Faculty time spent on research and scholarship is difficult to quantify, since individuals often work on scholarly projects at irregular intervals, in evenings, on weekends or vacations, or during summer months. Especially for faculty who do not conduct their scholarly work in a specialized setting such as a laboratory, studio or practice hall, identification of their time spent in scholarly pursuits becomes very difficult. Attempts to collect such information generally rely on either self-reported retrospective data or on daily log records. The former method may be unreliable or otherwise skewed, while the latter imposes a burdensome effort on the faculty and takes time away from productive pursuits.

Departmental Research

Scholarly activity which is supported by institutional funds and support services is referred to as "departmental research". Most liberal and fine

arts faculty, and many faculty in the social and basic sciences, depend primarily on departmental funding to support their scholarly activity, since government or other external support sources are limited in these areas. Departmental support may consist of part-time clerical assistance, use of departmental computers and other technical support, use of graduate research assistants, and working-day time which is not specifically assigned but is considered set aside for scholarly work.

Sponsored Research

Faculty in all disciplines, but especially in many of the applied or basic research disciplines, such as sciences, engineering, agriculture, education, medicine and so on, receive external support for their research activity, which is referred to as "sponsored research". The external sources may include:

- Local or state government contracts and grant programs;
- National Institute or other Federal agency grant funding;
- Foundation or other private agency grants; and
- Contracts or grants from business and industry.

Sponsored research may be required to focus on a specific line of inquiry, or the sponsor may grant resources for the recipient to use in a more flexible way. However, in most cases grant proposals or other requests for funding must be developed and submitted in a detailed, formal format, indicating that the goals of the sponsor will be met by means of the proposed research activity. Development of grant proposals may require significant amounts of time, with no guarantee that the time and effort invested will yield funding results. This may lead to problems with measuring such activity as a part of total faculty workload.

OMB Circular A-21

The Office of Management and Budget has issued guidelines to colleges and universities which conduct research supported by Federal dollars. These guidelines, set forth in Circular A-21, concern the reporting requirements

for Federally supported research projects, particularly with regard to the indirect cost recovery rate used by the universities. Reports to the Federal government must account for the research faculty's time spent working, both on and off the funded project. Since the categories of percent of effort by which the faculty should report are specified in Circular A-21, institutions which receive Federal funds must synchronize their internal workload methodologies to conform with the OMB guidelines wherever appropriate, in order to reduce the confusion and amount of effort required for such studies.

Output Measures

The measurement of scholarly output seeks to ascertain the research productivity of an individual faculty member or department. This issue is the subject of another study for Iowa State University in the organizational audit, and therefore will not be addressed in depth in this report. However, a discussion of the variety of scholarly outputs is important to emphasizing the difficulty in equating and comparing output between different disciplines, and the inappropriateness of setting uniform output standards across disciplines.

Published Outputs: Different disciplinary clusters produce different scholarly outputs. Liberal arts and social and basic sciences faculty, for example, are expected to produce written research results which can be reviewed and evaluated by scholarly peers. Typical outputs are listed below, in generally accepted order of prestige and perceived scholarly quality:

- Articles published in peer-reviewed and edited journals;
- Monographs and reports published by organizations associated with disciplinary scholarship;
- Scholarly books;
- Papers accepted for presentation at scholarly conferences;
- Textbooks, articles and other publications published in a non-peer-reviewed context; and
- Reviews of peer research or other work.

The principle guiding the evaluation of these research outputs is the acceptance of the work's validity and contribution to knowledge by the creator's peers, as well as persons in related industries, patent offices, grant-makers, and other external reviewers. This may be considered an indication of the work's quality and its contribution to the enhancement of the institution.

Creative Outputs: Creative disciplines, such as art, architecture, prose and poetry, dance, music and dramatic composition and performance, and the like, produce a very different set of scholarly outputs. Examples include:

- Paintings, drawings, sculptures, photography and other artwork;
- Gallery exhibitions and other public artwork displays;
- Architectural plans and projects;
- Dance, dramatic and musical compositions;
- Dramatic, musical, and dance performances; and
- Fictional works, short stories and poetry.

Similar principles of peer review and recognition apply in these cases to the assessment of a work's quality. Prizes, awards, honors and favorable reviews bestowed by peer evaluators are all potential measures of output quality. General public acceptance and recognition also can be viewed as indicators of quality.

Other disciplines in the applied sciences, engineering, agriculture, medicine and the like produce and measure written outputs, but may also produce new materials, patentable inventions, new treatments, building projects, and other tangible works. Education faculty may produce curricular innovations; physical education faculty may produce new training methodologies, and so on.

Some research evaluators believe that a tangible output should not be valued as productive research unless it has been published in a refereed journal. A related problem concerns whether articles submitted but not yet accepted for publication should be included in an assessment of

research activity: some department administrators take these articles into account, while others do not.

Grant Dollars Generated: Another kind of research productivity measure looks at the financial benefits of a faculty member's research activity, rather than his or her production of knowledge or creative work. A problem with using sponsored research dollars as a comparative measure arises when disciplines which can relatively easily attract such support are compared to disciplines in which such dollars are relatively scarce. Before expectations and minimum levels of grant support can be considered as a measure of research output (assuming this is an appropriate measure for the institution based on its mission), disciplinary differences must be taken into account along with a general awareness of the overall potential for support from outside sources at a given time. For example, art history faculty are less likely to attract sponsored support than bioengineering faculty. However, once-popular sponsored fields, such as the study of potentially oil-rich geological formations, may experience a dropoff in sponsored support due to the external impact of falling oil prices rather than to any change in activity on the part of the faculty involved.

Use of Graduate Research Assistants

Graduate research assistants (GRAs) are used by many faculty to assist in conducting research. These assistants are pursuing masters or doctoral degrees; post-doctoral assistants are not included in this definition. They may be available for general assistance to a departmental faculty, but are more often associated with or hired by an individual faculty who acts as the "principal investigator". The degree to which these GRAs affect faculty members' research "load" depends on the level of involvements the faculty members seek both in pursuing their research project and in advising/instructing the GRAs working with them. Most faculty remain highly involved in their research and devote time to directing their GRAs. In some cases, a faculty member may be very busy in other areas or other projects and may place a good deal responsibility in the hands of his or her research assistant. This is not necessarily

inappropriate, especially if the assistant is working toward a doctoral degree through the project. Nevertheless, the degree to which faculty members have GRAs available and spend time working with them on their research has a material impact on the amount of time they may spend on research activity.

Most comprehensive research universities provide for GRAs both to support faculty research efforts as well as to provide graduate students with means and supervision to complete their own theses and dissertations. The availability and quality of GRAs can have a significant impact on the ability of a university to attract top-level faculty. Graduate research assistants are also a "proving ground" where new faculty talent may be identified and cultivated. The funding of GRAs may come from departmental budgets or from grant dollars specifically awarded for that purpose.

A faculty member and his or her research assistants often become an effective "team", whereby the faculty member provides intellectual leadership and the ability to pursue outside funding, while the assistants set up and monitor experiments, or otherwise perform research footwork and analysis. In this case, difficulties may arise in attempting to categorize related faculty activity as research or instruction. Such activity enters a gray area and may be categorized as either research or instruction depending on any given day's activities.

Factors Influencing Scholarly Activity

The level of scholarly activity engaged in by different individual faculty members may vary widely depending on several factors. Once again, these factors must be accounted for when comparisons of scholarly activity are being made.

- Institutional Mission and Academic Discipline: The influence of these factors, particularly disciplinary differences, are substantial and have already been discussed in this report.

- Institutional Policies and Level of Support: The degree to which an institution promotes policies that emphasize research and provides necessary levels of technical and administrative support impacts to a material extent on the scholarly productivity of the faculty. This is particularly true for those disciplines which do not have access to externally sponsored support.
- Individual Preferences and Motivation: Faculty preference bears significantly on the actual research workload carried by an individual. In fact, attempts to "cultivate" greater faculty time devoted to research have been shown to be ineffective in some instances. Research results reported in Yuker's 1984 report indicates the following:

The assumption that teaching and research are negatively related is tenable only if the total time devoted to the two activities remains constant, which is often not the case. It is probable that if teaching loads were reduced, faculty members would either devote more time to activities other than research or reduce their total work week (p.46).

This observation bears directly on the issue of research productivity management. If institution leaders were intending to stimulate more research activity among all faculty, they could not depend on achieving the desired result simply by reducing the overall instructional workload expectation. In that case, faculty who were deeply interested in research might produce at a higher level, but faculty interested in pursuing the minimum level of research required to support their teaching might not increase their scholarly activity. Other rewards or stimuli would likely be necessary in conjunction with the reduced instructional load in order to make the plan successful.

Professional Development

Professional development activities generally constitute a relatively minor portion of faculty activity. Although it is not usually included in formal workload assignments or expectations, it is frequently supported by the institution, and is often included in faculty workload studies. Generally, an

institution expects that its faculty will remain current and active in their fields of inquiry in order to adequately fulfill their faculty role. Thus, professional development may be viewed as a required activity for faculty, and can be considered as a legitimate part of a faculty's workload. Virtually all faculty engage in some form of professional development. Three major aspects of professional development activity include:

- Attendance and participation at professional meetings and conferences;
- On-going reading, study, and discussion with colleagues on issues related to the faculty member's discipline and responsibilities; and
- Professional renewal through faculty leave programs, sabbaticals, and fellowships.

Faculty generally seek to maintain and improve their knowledge of the field and professional skills independent of departmental requirements. Workload problems arise primarily in the case of faculty leaves and sabbaticals. Departmental administrators must coordinate such activity so that the department does not lose irreplaceable academic expertise and course coverage. Even when faculty leaves are well-planned and coordinated, the resulting temporary gap in departmental faculty resources tends to place a noticeably heavier workload on the remaining faculty. Departmental or institutional policy determines whether the increased level of responsibility is considered a paid overload, or whether coverage is supplied without financial acknowledgement. Once again, this issue is best managed at the departmental level.

Iowa Faculty Profiles: Scholarship, Research and Creative Activity

The following faculty profiles illustrate many of the issues raised above, such as differences in scholarly outputs, difficulties in measuring the time and effort devoted to scholarly activity, and problems associated with finding time for professional development activity. The profiles also highlight the range of scholarly work produced by faculty throughout the Regents institutions.

1. Dr. Alpha is a professor of English. His research program focuses on articles and books concerning the philosophy of language. He also engages in testing and mass scoring writing samples. He reports that this research is quite independent and that he receives little formal support from the university.

In the past he has actively participated in the National Association of Teachers of English, Modern Languages Association, and the Association of Departments of English. Dr. Alpha stressed that these professional development activities served as a means of training composition professors in composition assessment techniques.

2. Dr. Gamma, an associate professor of Law, pursues a research program which follows closely the prescribed research track to obtain tenure. She concentrates on publishing two law review articles each year and lecturing at schools and conferences. Most research is conducted during the summer with the help of research assistants. An external grant and a competitive grant from an institutional fellowship supports her research.

Dr. Gamma remains active in a number of professional development activities. She is interested in the causes of the National Conference of Black Lawyers. She takes special interest in the countries of the Middle East and South Africa as a member of the Board of American Society for International Law. She speaks one day a month for these causes.

3. Dr. Theta, a tenured associate professor of Industrial Technology noted that in his department the reward structure for research favors quantity of published articles in referred journals, but not grant dollars received.

His own research program includes the longitudinal study of professional activities within his field, from which he published an article. He currently spends ten hours a week on research, noting that this time is often completed in evenings and weekends. To keep current in his field he attends the Industrial Technology Education Association conference, the Mississippi Valley Conference and the State Technology Education Conference.

4. Dr. Iota is an associate professor of Education on the tenure track. In her position, research productivity is measured by published book chapters, paper presentations and curriculum development. Her research program includes three proposals for national conference presentations and for articles for referred journals.

Each semester she estimates spending evenings, weekends and holidays to complete her research. She spends ten hours on paper proposals and eight hours on writing book chapters for textbooks per semester. In total, she works on research for about 25 hours each week.

Her professional development activities include attending the annual Association of Teacher Educators and internal department presentations.

Seventy percent of expenses are paid by the College if she gives a presentation but no expenses are covered for merely attending a conference.

5. Dr. Kappa is a professor of Electrical and Computer Engineering whose salary is paid in part by grants. Dr. Kappa stressed the evolving nature of his field. Self-teaching and research is critical since material changes dramatically each year.

Research comprises 40% of Dr. Kappa's workload. He is involved with cardiac imaging and image processing. His grant sources include a variety of public and private entities. He also published a book and developed papers for journals.

In addition, he serves on a number of professional development organizations. For example, he goes to national meetings, chairs sessions and gives papers to the following organizations: the Advisory Committee for the University of Kentucky, the National Committee meeting of ASE and National Institutes of Health and National Science Foundation grant reviews.

6. Dr. Nu is an associate professor of Music. Appropriate measures of research activity in the music department are performances and grants obtained from arts foundations. Dr. Nu's own research program consists of a yearly recital. In the past, topics have included Bach and Liszt. Lecture/recitals comprise another area of interest, especially as an outreach tool. Due to her teaching responsibilities, she now allots thirty minutes per day to her own research when she used to devote five hours daily. Dr. Nu stressed that heavy service commitments are the primary reasons for her decreased practice time.
7. Dr. Lambda is a professor of Forestry. Dr. Lambda's research speciality is tree genetics. He received federal monies through the agricultural extension to support this project. Other grants have come from the International Energy Agency, National Energy Agency and the Biotechnology Counsel, to help support his studies of cloned materials. Dr. Lambda noted that while the expectation of research is widely accepted in his department, his teaching and institutional responsibilities afford him approximately six hours a week for research.

Dr. Lambda makes time for two professional conferences and one to two scientific conferences per year. He is active in the Society of American Foresters, the Poplar Conference and the Iowa Academics. Due to limited college support for faculty travel expenses, Dr. Lambda remarked that many professors use research grants for professional development expenses, or use their own personal funds.

SECTION 3: SERVICE AND PROFESSIONAL PRACTICE

The service component of a faculty member's workload is vital to the management of an institution, as well as being an integral part of the institution's mission. The service component can be broken down into a range of activities, as illustrated in Exhibit 4:

- Institutional service;
- Professional service; and
- Public service.

Despite the importance of these activities to the mission and functioning of an institution, they are not usually included in a specified workload assignment, nor are they generally rewarded as part of a faculty member's contracted contribution to the institution. Although most faculty seem to accept these responsibilities as part of their overall job, they also express frustration in situations where such unrewarded activities come to dominate their time. Contributing to the service needs of an institution while maintaining adequate levels of instructional and research activity become something of a juggling act for many faculty.

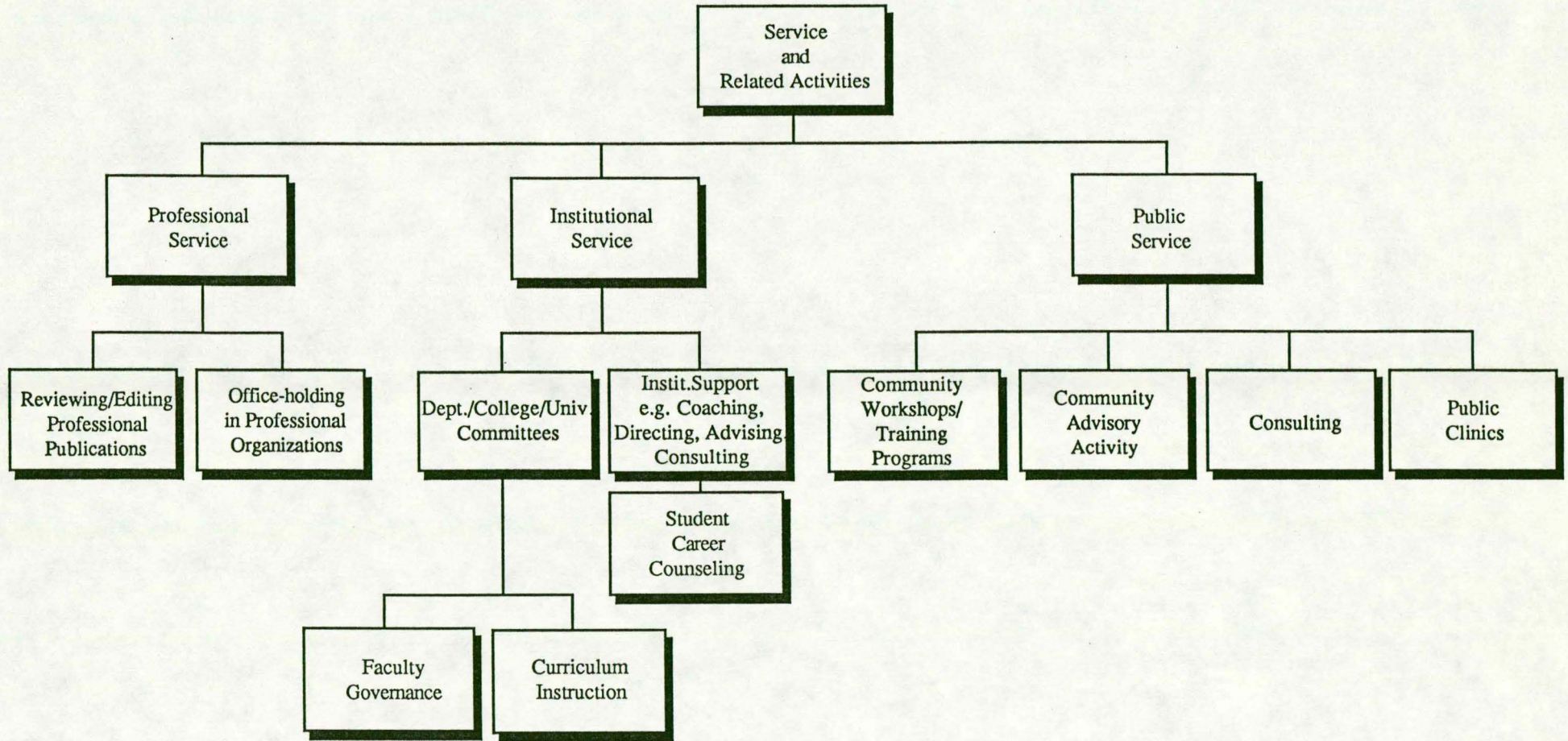
Institutional Service

Service to the institution may include a variety of responsibilities, ranging from informal to formal. The significant areas of contribution can be identified as the following.

Committee Work

The collegial nature of institutional management compels the formation of faculty committees to advise on and make administrative decisions at the departmental, collegiate and institutional level. Very few tenure-track and tenured faculty escape service on at least one or two committees during an academic year.

FACULTY WORKLOAD ACTIVITY CHART: SERVICE



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Committees may be formed around many different issues, including faculty governance, curriculum and instruction, and ad hoc issues. The time commitment required of a committee member may be minimal, cyclic, consistently manageable, or intensive.

Faculty who enjoy or are effective in committee work tend to get more committee assignments or requests to serve. Committee assignments are usually made at the departmental level on a request basis, although directives and elections to service also occur. Studies show that faculty involvement in committee work tends to increase as they move up the ranks. Department administrators will often discourage junior faculty from committee work in order to permit more research time. Release time, usually from instructional expectations, is occasionally provided to faculty who sit on very active committees, such as faculty senates. Faculty who move into administrative positions have entirely different performance standards and are not included in this discussion.

Student Services and Administrative Support

Faculty also serve their institution through a variety of student-oriented or administrative support responsibilities. These may include:

- Coaching or student group advising;
- General student counseling on non-academic matters, such as career counseling;
- Directing academic or allied institutes, centers, or other special curricular or institutional entities;
- Intra-institutional consulting; and
- General administrative functions and paperwork.

Again, individual faculty expertise and desire dictate to a large extent the level of involvement in these types of activities. While faculty performance of these duties constitutes a cost savings for the institution (since it does not need to hire as many staff to fulfill all such support roles), faculty generally receive little reward for support service beyond occasional release time.

Public Service

Public service expectations vary widely depending on institutional goals and expectations, and the discipline in which a faculty work. Formal public outreach programs provide both opportunities and necessities for faculty contribution. Public service activities may include:

- Community workshops, training and extension programs;
- Clinics and other services available to the public;
- Community advisory responsibilities utilizing a faculty member's field expertise; and
- Other unpaid consulting activity.

Public universities understandably tend to have a strong commitment to public service, given their mission and resource base. Within the public education arena, institutions with specific mandates, such as land-grant universities and universities with professional degree programs, may expect a greater degree of public service activity from their faculty.

Different disciplines can contribute more directly to the public than others, therefore different levels of public service workload are generally expected. The education discipline, for example, may provide substantial levels of service to the community through teacher in-service training and workshops and development of off-site institutional programs. Agriculture and animal sciences are heavily involved in local community extension program. Medical disciplines provide clinical services to community patients, who receive standard medical care and treatment while students are instructed in medical care skills through patient contact.

Individual faculty strengths and preferences also influence the level of public service workload they carry. Community advisory responsibilities, to the local Board of Education for example, are shouldered by individual faculty because they wish to serve the community, but they are recognized as members of the university community and therefore contribute to the prestige of the university in local communities. Outside unpaid

consulting engagements, such as advising state or federal governmental agencies or projects, serving on study sections of granting agencies, and the like, may be motivated and perceived in a similar manner.

Professional Service

Professional service is generally not expected in any way by an institution, but faculty participation in professional organizations accrues to the reputation of the university. Professional service activities may vary widely; among the more visible and prestigious activities are:

- Editing professional refereed publications, or reviewing material to be included in the same; and
- Holding office or contributing other substantial support to professional organizations and associations. This can include review of paper proposals for conferences.

Most faculty do not have or take the opportunity to get very deeply involved in professional service, although most faculty at major universities do participate fairly regularly in professional associations. Those who become more extensively committed, however, are not likely to receive release time from their standard workload. Once again, personal preferences and skills tend to be the determining factors regarding which faculty become heavily involved in professional service activities.

Measurement of Outputs

The issue of institutional measurement of service loads depends on how important such activity is to the institution. In-service training and workshops, extension activities, and clinical work are all formally identifiable in a faculty member's overall workload, and are therefore more likely to be rewarded. Most departments at the Iowa Regents institutions collect information regarding committee work and other service activity for use by the department administrator in evaluating

performance and developing merit awards. This information is collected anecdotally from the faculty member, either formally or informally. The setting of expectations is likely to provide difficult in almost any informal service activity, however, because of the differences across disciplines and among individual level of motivation.

Professional Practice

Professional practice activities differ from the activities which have been described previously in that they are not generic to the concept of faculty activities nor to the mission of all academic institutions. They can be considered "special" activities in that only faculty in certain disciplines or in certain types of institutions engage in or are responsible for such activities. Although other fields might arguably be included in this category, the primary fields and practices may be described as:

- Extension services, including agriculture, home economics, engineering or other community-based fields such as teacher training, which offer instruction, counseling, training or other services to the public, in off-campus settings;
- Clinical services, including all patient care and diagnostic services offered in the fields of medicine, nursing, dentistry, veterinary medicine, pharmacy and other related fields in clinical settings available to the public; and
- Professional services based in academic fields, such as library science or statistics.

Faculty activity related to continuing education programs may also be included in this category, although in this study they will not be addressed.

Extension programs are generally confined to the province of land grant universities such as ISU.

In each area, the faculty member is interacting with a public clientele, rather than an enrolled student. In the context of a faculty workload discussion, professional practice activity should include:

- Preparation for the instructional, patient care or client servicing responsibilities related to the professional practice; and
- Direct client interaction.

Exhibit 5 illustrates the relationship of these components. "Clients" may vary at any given time, including students, patients, customers, service utilizers, community citizens or other groups. The multiplicity of clients both defines professional service as a separate category of activity, and makes its analysis more difficult. For example, the medical faculty who is teaching a group of medical students in Grand Rounds is also providing care to patients. Measurement of the time and quality of effort the faculty member invests in these activities cannot be subdivided. Likewise, a faculty member providing information on pest control to local farmers in an extension office is engaging in both an instructional and a service activity.

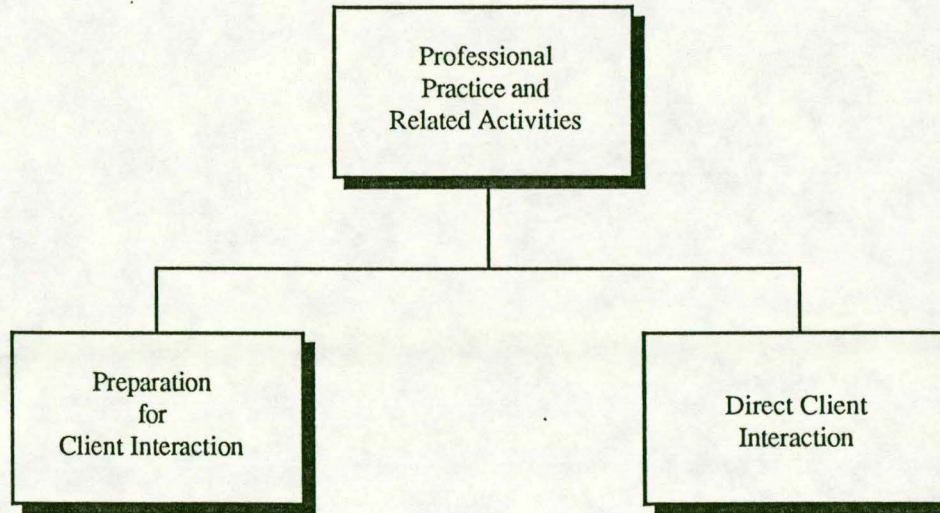
Professional practice activities require a different approach to measuring workloads from those which are suitable for the usual three areas of faculty activity. Quantitative measures which utilize credit hours are not appropriate, nor are any typical output measures. Perhaps more valid potential measures would utilize more client-oriented information such as:

- Number of patients/clients serviced in a given period; and
- Patient/client feedback through structured questionnaires.

If all faculty in a given discipline are required to commit time to professional practice, such as medical faculty, then workload is allocated according to the needs of the department, similarly to instructional workload allocation. If, on the other hand, faculty may or may not be involved in professional practice commitments, such as engineering and extension programs, then workload should be allocated in an attempt to balance the needs of the extension program with departmental instructional and other needs, as well as faculty skills and preferences.

FACULTY WORKLOAD ACTIVITY CHART:

PROFESSIONAL PRACTICE



Iowa Faculty Profiles: Service and Professional Practice

The faculty profiles which follow illustrate many of the types of institutional, public and professional service performed by Regents institutional faculty. The profiles also highlight the difference in service opportunities that occur in various disciplines. Faculty profiles in the medical and veterinary disciplines also illustrate activity related to professional practice.

Service

1. Dr. Gamma, an associate professor of Law on tenure-track serves on three to four faculty committees within the law school. In the last two years she also served on two committees to select scholarship students. Her time commitment to these groups varies. For example, the recruiting committee meets weekly while the African Studies and African American Studies committees meet monthly. In addition, she also guest lectures in programs outside the law school, which do not count toward her credit load.

Dr. Gamma has served the National Conference of Black Lawyers and has sat on the board of the American Society for International Law. Typically, she delivers one speech a month for these groups. She has also accepted payment for delivering lectures on topics of interest off campus.

While advising responsibilities are not assigned to the law school faculty, she has initiated an active advising schedule for black and women law students. Each week she advises interested students approximately eighth hours in the areas of career counseling, personal advising, financial problems, racism and sexism. She enjoys counseling and maintains this open door policy.

2. Dr. Omega, a professor of Statistics, is active on the promotion and tenure committee and generally sits on one to two other departmental committees. Frequently Dr. Omega noted that he is called upon to provide intra-institutional consulting. Because of his expertise, it is assumed that he will be available for consulting with faculty in other disciplines, graduate students and other statistics faculty. He often provides statistical analysis for government contracts. Although requests varying, he notes that time commitments in this area are often sizeable.

He also provides public service for roughly fifteen hours per semester by reviewing National Science Foundation proposals.

3. Dr. Kappa is a professor of Electrical and Computer Engineering. Dr. Kappa noted that his involvement in university activities is far above average. He serves on the faculty audit committee, faculty senate and

the budget committee. He has also been active in the government relations committee and the engineering faculty council. He describes his own public service involvement as light. He has judged science hours, sponsored high school independent study, and has participated in grant review activities in Iowa development.

4. Dr. Lambda is a professor of Forestry. Dr. Lambda was assigned a number of committees by the DEO. At the department level, he resides on the scholarship and awards committee and the graduate admissions committee. At the college level, he is active on the academic honors committee and the pest management committee. On the average, he spends one to two hours per week on these tasks. In the area of public service, he looks at potential acquisitions with the Nature Conservancy, speaks at Kiwanis functions and writes newspaper articles.

He also consults professionally two to three days a year for the state department of natural resources.

5. Dr. Nu is an associate professor of Music. Her service commitment is intensive. Because there are no available staff replacements, release time from teaching responsibilities to serve on committees is not possible. She serves on the self-study committee four hours per week, the college strategic planning committee 5 to 6 hours per week, the consultative committee four hours a week, the scholarship oversight one hour each week, as well as serving as working head of her specialty area. Other service activity which is part of her own professional development includes sitting on the Music Teachers National Association. Through the local Community Arts Council she also shares her knowledge with the community. When called upon, she also judges festivals and offers pre-college student lessons as a recruitment tool.

Professional Practice

1. Dr. Sigma is an associate professor of Veterinary Clinical Science. Dr. Sigma stressed that clinical service is the focus in the program. The need for the staff to develop clinical skills has made research difficult. Service is an important factor in Dr. Sigma's workload. While his involvement in three committees requires approximately one hour every other week, he also serves on a number of professional boards. He lectures at annual conventions for the American Association of Equine Practitioners and American College of Veterinary Surgeons. He involves himself in continuing education programs for practicing vets. In this vein, he teaches three seminars every year for the Vet Extension Program. Five hundred dollars are expected to cover his conferences if he is speaking. Dr. Sigma spends approximately one month out of the year in these activities including preparation and attendance. He follows the university's encouragement and volunteers to consult with other veterinarians in other towns.
2. Dr. Epsilon is a professor of Internal Medicine. Since he works closely with his residents during clinical rounds and rotating night calls, his student advising takes on an ad hoc and informal nature. While this informal mentoring comprises a major time commitment daily, he also

schedules approximately five hours monthly for formal review: performance evaluation, problem review, elective selection and career path advisement.

He is also heavily involved in institutional service activities. As director of a specialty service, he offers procedure consultation and teaching. He also serves as a clinical supervisor for an internal medicine specialty for approximately five hours each week.

In the area of community service, he sits on a board of directors for a local chapter of a foundation and makes presentations to the county medical societies. He contributes approximately twenty hours each year in this area. Furthermore, he consults with a corporation four days per year.

As a member of the clinical faculty, he spends much of his time seeing patients in clinics with students. In this situation, he teaches on the job while treating patients. He works six to seven months of formal assigned clinic work per year. He also team teaches portions of more traditional courses, such as epidemiology and nutrition. This combination of clinical patient care and formal lectures each semester provides the trade-off with his research activity. In addition, on an average, he spends 30 to 40 hours per year on a student teaching lecture series, case discussion conferences and clinical lectures.

Dr. Epsilon works quite closely with his residents. Frequently clinical rounds include weekends and rotating night calls. In each ward during his clinical assignments he supervises three residents and four students. He currently trains one to five students in his medical speciality. He actively performs formal evaluations, oral reviews and written evaluations. Two hours each week he advises his own students.

3. Dr. Chi is an associate professor and director of field experience in Education. She teaches two clinical-type graduate courses to fifteen students each semester. Also, she supervises a half dozen students interning for credit.

She estimates a 2:1 preparation time for each class. This same ratio applies to new courses. Three hours are also set aside each week for office conferences with her own students. An estimated 15 to 20 hours is necessary per week per class in student evaluation. Dr. Chi believes strongly in not cutting corners in this area. She grades all student work.

Dr. Chi describes her mission as research oriented. Given this commitment, she feels her work load is heavy, and that she must use summers to complete research. Dr. Chi views her research program in four streams. The assessment of elementary and adolescent children remains her focus. She presents her opinions on this subject in published book chapters, regular research, review of tests and review of literature. She also studies this subject twenty hours a semester, both paid and unpaid, as a licensed professional observing children.

Dr. Chi also performs counseling duties. For about three hours each week, she advised six graduate students on course of study, internships and career counseling. She also commits at least fifteen hours a semester to two masters students as a dissertation supervisor.

Dr. Chi views her commitment to professional development activities as about average. She makes at least two national and local conference presentations per year and remains available for unpaid private consultations.

Out of the classroom, she also serves the institution as a member of several collegiate committees.

CHAPTER III
TOWARD FACULTY RESOURCE DEPLOYMENT

We have presented in some detail the components of and the issues related to faculty workload. Yet understanding a faculty member's workload is not useful for much more than imagining what faculty do with their days. That static approach may be helpful for point-in-time accountability, but without an active framework, it cannot really help managers at any level make decisions. The value of knowing faculty activity emerges when such activity is related to the direction in which the institution (or college or department or even individual) actually wishes to move. This implies a linkage of faculty workload definition, allocation and assessment to the strategic goals and operational plans of the institution. The resulting approach can be termed, more dynamically, "faculty resource deployment."

In this chapter, we discuss the development of a faculty resource development (FRD) approach, toward which the Board of Regents and the institutions may consider moving over time. We will present first some of the issues related to faculty resource deployment (FRD), including the relationship between planning and FRD, the need for flexibility, and FRDs impact on institutional effectiveness and efficiency. We will then explore the FRD accountability relationships among the different institutional management levels. Finally, we will discuss the development of FRD "management indicators" which might be used to track the current utilization of and future requirements for faculty.

In an appendix to this chapter, we review the development and use of the Regents Faculty Activity Analysis Reports, and suggest more interpretive analytical approaches to using the data collected. More specific exploration of FRD applications to Iowa's Regents institutions is discussed in the institutional workload studies accompanying this framework report.

ISSUES OF FACULTY RESOURCE DEPLOYMENT

The differences between faculty workload and faculty resource deployment must be viewed in the broader institutional context.

Planning and Faculty Resource Deployment

The primary resource decision every institutional manager must face is how to most effectively deploy resources in order to maintain and enhance institutional quality and promote the institutional mission. The critical factor in that decision should be an understanding of where the institution is, where it wants to get to, and how the deployment decision will propel the institution toward its goal. The objectives, strategies and expectations at each level need to be coordinated and communicated throughout the institution. Therefore, planning is a critical activity which should permeate each level of the institution.

Overall institutional direction-setting and supporting strategies need to be developed by the Regents and the institutional leaders in concert. Yet, faculty deployment needs are best understood at the departmental level, where department administrators are aware of the distinctive qualities and necessities of their disciplinary programs and their faculty. Therefore, top-down Regents and institutional priorities and directions must be set in light of bottom-up needs analysis from the departmental and collegiate levels.

The Need for Flexibility

Faculty workload measurement has long been of interest to institutional managers in order to make informed decisions. Today's institutions, however, are also subject to intense market forces. These external competitive forces require that institutional managers gain more flexible control over their decision-making and their resulting action.

A principle inherent in an FRD approach is that institutional managers and their faculty consider faculty deployment as a flexible tool to redirect or

focus the energies of the department/college/institution toward new opportunities or in response to new external conditions. The assignment of workload becomes a means for department administrators to satisfy the various needs of their programs and demands of faculty, students and other constituencies, as well as to pursue their departmental or collegiate strategic goals.

This implies also the need for flexibility in setting expectations and standards which are intended to apply across disciplines within a college, or across colleges within an institution. Attempts to base deployment decision-making on uniform workload standards imposed by upper management levels are not likely to take into account the variety of working conditions and opportunities faced by different disciplines. Therefore, flexibility in workload expectations setting and performance assessment must be sought if the workload information is to be valid and useful.

On the other hand, pursuit of ideal quality output in all institutional arenas becomes very difficult in the face of constrained financial resources, shifting student demand and changing faculty supply. When hard choices must be made in distributing faculty and other resources most effectively, then output or productivity measures become important decision tools, both for deployment of current faculty and for recruitment and development of future faculty.

Efficiency and Effectiveness

The effectiveness of institutional management has to be evaluated in part on the efficient use of its resources. In the case of faculty resources, efficient use really means effective use, since it implies the highest productivity and quality possible within the abilities and timeframes of existing faculty. Cost savings with regard to faculty resources generally can only be achieved through staffing decisions to reduce the total number of faculty. On the other hand, effective deployment decisions should lead to more productive allocation and utilization of existing faculty. When deployment decisions are most effectively made, then the institution will benefit in a number of ways:

- More ground-breaking research and sponsored research support might accrue if faculty who are successful and productive in this area are allocated sufficient time to pursue their work;
- Student satisfaction may increase if faculty who are very effective teachers are allocated appropriate instructional responsibilities and rewarded for their contribution; and
- External supporters and constituencies may support the institution more vigorously if they perceive the institution moving toward instructional, scholarship or service goals that it has set for itself.

The scenarios just outlined do not refer to absolute or categorical "specialization" of assignments, since it has already been recognized that an effective faculty member must engage in both research and teaching activity. Rather, the scenarios imply attention to the balancing of faculty activity to achieve institutional and individual goals.

Of course, external factors may impact and change each of these scenarios outside of the institution's control or its faculty deployment decisions. Nevertheless, faculty deployment should be viewed as the most critical means by which institutional managers at every level, as well as faculty themselves, can achieve their goals.

LEVELS OF MANAGEMENT ACCOUNTABILITY

The manner in which faculty deployment is utilized and evaluated shifts as it moves up through institutional management levels. Decisions which are made at one level are not necessarily appropriate at the next. The following discussion outlines the relationship and responsibilities regarding faculty resource deployment throughout the four levels of institutional management. Further discussion of these relationships is provided in the institutional reports.

Departmental Administrators

In general, a departmental administrator and the departmental faculty all participate in the determination of instructional, scholarship and service responsibilities required for the department and their allocation among the faculty. Nevertheless, departmental administrators are the primary implementers of faculty resource deployment decisions. In the most local, immediate sense, they manage the department in collegial fashion with their faculty.

- They oversee and understand the distinctive discipline in which their faculty work.
- They are responsible for allocating instructional and service loads based on an understanding of the needs of their programs, the desires of their faculty, and the goals of their department and college.
- They are generally responsible for defining or at least interpreting for their faculty the workload expectations indicated by the college dean.
- They are usually responsible, and best-qualified, for observing and evaluating their faculty's performance, and recommending rewards and constructive criticism.

The manner in which a departmental administrator makes deployment decisions and evaluates performance depends on the characteristics of the discipline as well as the personality and style of the individual and of the faculty with whom he or she works. Some departmental administrators use quantitative methods or models to evaluate and assign workload, while others depend on personal, informal communication and a general understanding of what the department needs and what faculty want. This flexibility in approach is positive, in that it accounts for disciplinary and individual variations. On the other hand, departmental administrators need to report results to deans and above, and therefore must collect and review workload information according to whatever standards are set.

Faculty workload information is generally already collected at the departmental level in the form of annual faculty activity summaries, which are used both for performance evaluation and for future workload determination. These can be formal reports by stated category and activity measure, or informal descriptive letters to the departmental administrator. The size of the department as well as management and faculty style influence the reporting methods.

College Deans

At the collegiate level, deans must allocate and coordinate resources across their departments in order to cover programmatic and operational needs, as well as to move toward more strategic goals set in concert with institutional leadership. When resources are scarce, deans must make difficult evaluations regarding program and departmental value, or ask all departments to tighten their belts.

Individual deployment decisions should not be made at this level. However, the dean of a college may be responsible for setting workload parameters which must be met by all departments, as a means to achieving a larger strategic objective. The collegiate level is often the most convenient entity to compare to peer institutions, and therefore workload expectations may often be determined based on peer or aspirant comparisons. These workload expectations must, however, take into account the disciplinary variations; in some cases, tables of equivalencies in varying types of workload can be developed.

Merit or other reward decisions are often approved by the college dean on the basis of recommendations from the departmental administrator. Rewards for performance are part of deployment decision-making, since they are the means by which unassignable activities might be encouraged to change. A critical role for the college dean in this regard is to communicate clearly the workload and performance levels expected of collegiate faculty.

Deans must report their college's performance to both institutional leadership and governing bodies such as the Board of Regents. Reporting the results of FRD decisions should include only summary-level "strategic indicators" which

illustrate whether the college successfully achieved its stated goals for the period and is headed in a desirable direction. How these "strategic indicators" might be developed and utilized is discussed further below and in the institutional reports.

Institutional Executives

At the institutional level, FRD information should be supplied as measures of the success of colleges in achieving the goals which they and institutional leaders have set regarding balance of effort, effectiveness of performance, and level of productivity. Institutional executives use the information to make top-level resource allocation decisions and determine which areas to seek greater support for or streamline activity in. Arguments may be made by college deans at this level to seek more faculty lines, expand or contract programs, and make other strategic resource recommendations or requests. Institutional executives should ultimately review, approve, and monitor collegiate goals in regards to their market position, their basic program maintenance and areas of focused excellence, and their effective use of resources.

Institutional research data is useful at the institutional and the collegiate level to provide aggregate indicators of instructional activity. FRD information should also be collected from college deans in order to focus on activities and outputs which are not tracked institutionally, such as non-credit-generating instruction, scholarly activity and service contributions. The measures by which this information is conveyed should be at a summary level, and should reflect the unique qualities of the colleges while remaining as simple and readable across colleges as possible.

Institutional executives are accountable to their governing bodies to show that they have responsibly allocated and monitored the use of the resources provided to them. FRD strategic indicators are useful in evaluating institutional performance as measured against strategic and annual plans.

The Board of Regents

The Board of Regents seeks the appropriation of resources for the institutions, and represents the resource allocation decisions of the institutions to the public. It also determines the strategic direction of the Regents institutions and sets the parameters within which institutional planning and implementation can occur. It therefore has a critical stake in the effectiveness of institutional resource allocation decisions.

However, the Board should not set or monitor specific workload standards or individual faculty performance levels. Rather, the Regents communicate general guidelines of faculty activity expectations, and then look to the capability and integrity of the institutional executives whom they have hired to manage effectively according to those guidelines. Results of institutional management decisions should be the Regents' primary focus of interest. Ultimately, departmental administrators and deans are the most directly accountable for FRD decisions, and they must also be trusted to understand the needs and constraints of their department and therefore deploy faculty resources in the most effective possible manner.

It is most important at this level to implement the dynamic FRD approach, where the Board evaluates strategic indicators (see below) which reflect resource and productivity shifts in the institutions over time. FRD reporting to the Board should summarize the productivity of resource utilization across the institutions. "Productivity" in this case applies not only to those quantitative measures (such as credit hours generated or sponsored dollars brought in) which are valid and pertinent to the institution, college or department, but also to more intangible benefits that may have occurred to the institution, such as improvement in faculty institutional service participation, general recognition of the institution by its peers or the public, and so on. These reports should also include interpretive discussion, supplied by the institutions, regarding the significance of the strategic indicators, and their relationship to institutional and broader Regents goals.

DEVELOPING FRD STRATEGIC AND MANAGEMENT INDICATORS

If faculty activity and institutional planning are to be linked in a faculty resource deployment approach, then the various levels of institutional management must develop and utilize focused sets of FRD performance indicators which can be compared over time.

Management Indicators

At the departmental level, these indicators supply the basic faculty activity information by which the departmental administrator makes deployment and reward decisions. We will term these indicators "management indicators", since they should cover the scope of departmental faculty activity and should be used for on-going management decision-making. This information can be collected in a format which is comfortable to both administrator and faculty, but it should report individual faculty activity in all three or four of the basic workload areas, should define terms when necessary, and should be accompanied by a statement of performance and output expectations for the coming year. The statement of future expectations is supplied by the faculty member not as a hard-and-fast commitment by which his or her performance will be measured the following year, but more as a guide for both the individual and the departmental administrator of faculty plans and priorities, and departmental activity.

Strategic Indicators

At the collegiate, institutional and Regents level, FRD reporting should focus only on those areas which reflect or have an impact on the goals and priorities of the institutions. The reporting is presented as "strategic indicators", since they reflect faculty activity at a summary strategic level. These strategic indicators should be developed in relationship to the information that the deans, executives and Regents require for decision-making. Extraneous information, or information collected solely for the purpose of "checking" that faculty are performing their roles and responsibilities, should not be included.

Setting the Indicators

For each of the three levels, an appropriate set of strategic indicators should be developed. These indicators may be similar to each other, varying perhaps only by the level of summarization and aggregation. This development should occur only after all parties have completed a strategic planning process and feel comfortable with the goals set out. The strategic indicators should provide insight into the achievement of those goals. The set of indicators should include no more than five indicators.

Baseline and Peer Comparisons

In order to have meaning, the indicators must be viewed in a dynamic context. The context can be that of time or in relation to a peer/aspirant group, or both. Trend analysis involves the determination of a baseline, or Year 0, set of indicators, and then the periodic comparison of current performance to past levels. The peer analysis is more complicated, in that baseline years for both institutional and peer indicator sets must be established, and subsequent analysis must involve gathering new data from peers as well as from the institutions. By comparing indicator sets over time which have been similarly produced, institutional managers can view shifts in faculty activity and production despite possible fuzziness in the data collection methodology. Consistency becomes the most important factor, rather than the complete integrity of the data collection approach.

Link to Planning

Regardless of what comparative context is used, FRD reporting is not complete without clearly linking the conditions illustrated by the strategic indicators to the goals and strategies of the college and/or institution. This involves providing qualitative interpretation of what the indicators mean, and how institutional decisions and faculty deployment have influenced the changes in the indicator levels.

This interpretive analysis is fundamental to the effectiveness of the FRD approach and the utility of the strategic indicator set. For example, assume that the student credit hour production per full-time equivalent faculty member (FTE) registers a sudden increase in a College of Business. This fact means very little until it is interpreted as, for instance, partially the result of the unpredicted loss of several faculty members and mostly the result of a concerted effort to increase enrollments of majors in the program. If the latter is a stated goal of the College of Business and the institution, then the analysis will reflect favorably on that school.

Strategic Indicator Options

The specific set of strategic indicators developed by each institution should be based on:

- the goals the institution is striving toward and the information needed to evaluate related progress;
- the character of the institution and the type of measures appropriate to use; and
- the capabilities of the institutional research and management information systems in place.

Below are listed a partial menu of strategic indicator options, which would provide some useful measure of productivity in each of the three basic faculty activity areas. Note that this listing is only partial, that each indicator provides slightly different information, and that some indicators are more appropriate for certain disciplines than others. Timeframes for data should conform to semester or quarter periods, not an academic year. Institutions themselves may develop more useful indicators which are not listed here.

Organized Instruction

- Student Credit Hours/Instructional FTE
- Faculty Credit Hours/Instructional FTE

- Student Contact Hours/Instructional FTE
- Unique Preparations/Instructional FTE
- Unique Preparations/Number of Organized Sections
- Average Class Size/Instructional FTE
- Number of New Courses Taught by Dept. by Semester
- Number of Degrees Awarded by Department

Individual Instruction

- Number of Students Supervised/Department
- Student Credit Hours/Instructional FTE
- Number of Doctorates Granted

Clinical Instruction

- Number of clinical rounds taught
- Number of patients treated, by subspecialty

Scholarship

- Number of Articles in Peer-reviewed Journals
- Number of Citations in Peer-reviewed Journals
- Works in Progress/Actual Publications
- Number of Books Published in Department in Past Three Years
- Volume of Sponsored Research Dollars Generated by the Department/College
- Number of Faculty Receiving Professional Development Leave
- Number of Performances/Exhibitions
- Number of Awards/Honors/Fellowships Received

Service and Professional Practice

While all kinds of faculty service activity contribute importantly to the success of an institution, institutional and professional service should be evaluated mainly at the departmental level. Public service activity, however, has great potential impact on the strategic direction of a

college or institution and therefore should be included in strategic indicator sets where appropriate.

- Number of Faculty Participating in Formal Community Service Activity, by type of activity:
 - In-service training
 - Community workshops
 - Continuing education courses, when not part of assigned workload.
- Average Hours per Faculty per Week devoted to the above.

Professional Practice

- Number of Faculty Participating in Extension, Clinical or Other Professional Practice Activity
- Average Hours Per Faculty per Week Devoted to Professional Practice
- Number of Patients/Clients Services (in a given period)

CONCLUSION

It is almost a cliché to say that an institution's faculty time is its most valuable resource. Yet this statement is so true that it bears repeating in most contexts of institutional management. The definition, allocation and assessment of faculty workload are all necessary in order for an institution to remain accountable to its supporting public. Equally important, the reputation and indeed the future of the institution ride on the effective deployment of its faculty.

Faculty members who must carry inordinate loads in an institutional attempt to "fully utilize resources" or simply cover basic service needs, or who receive inappropriate rewards because their efforts are evaluated inappropriately, are not likely to work as productively or positively for that institution.

Faculty shortages are anticipated in many disciplines, and institutions can predictably face diminishing resources and increasing competition. Therefore, institutional managers must try to develop and deploy faculty in ways that seek to simultaneously satisfy:

- the goals of the institution;
- the imperatives of the faculty; and
- the expectations of external constituencies.

Complete success with regard to all three is a next-to-impossible order. Nevertheless, the collection and utilization of appropriate faculty information along with the appropriate delegation of authority and accountability at the different managerial levels of the institution can help move Iowa's Regents institutions toward more effective deployment and development of their faculty.

In the final chapter of this report, we present a near-term approach to collecting and analyzing FRD information for the Iowa Board of Regents. First, we review the development of the Regents' Faculty Activity Analysis Reports. These reports have constituted the Regents' most concerted effort to collect and use faculty activity information. We will then suggest a more interpretive, analytical use of FAAR information. We recommend that the Regents continue to collect FAAR while deepening their analysis of the information, as the first step toward strategic-level faculty resource deployment decision-making for the Board of Regents.

CHAPTER IV
THE BOARD OF REGENTS AND FACULTY WORKLOAD ANALYSIS

The preceding chapter introduced the dynamic, multi-level approach to managing faculty workload, which we have termed "faculty resource deployment." This approach will require close study and concerted effort on the part of the Board of Regents and throughout the institutions in order to develop a complete body of management and strategic indicators which reflect appropriately the quantitative and qualitative outcomes of institutional faculty activity. The approach is complex because:

- It necessitates a continuing sensitivity to the uniquenesses of each institution and the various disciplines, thereby reducing the possibility of applying uniform expectations across the three universities;
- It operates in tandem with an active, effective planning process which considers FRD as part of its goals and evaluation processes; and
- It is likely to require implementation or retooling of institutional information and research systems which will have the capacity and the data input to produce the management and strategic indicators which are ultimately agreed upon.

We recommend that the Board and the Regents institutions begin to work together to determine the most appropriate indicator sets, in an effort simultaneous with their development of strategic planning processes. This FRD development process will, however, require a substantial period of activity and time, and therefore cannot adequately serve the Regents and the universities in the near future.

THE REGENTS FACULTY ACTIVITY ANALYSIS REPORTS AND FRD

We recommend, as a near-term solution to the Board's need for more useful faculty workload information, the utilization of the Regents FAARs with a more analytical, integrated examination of the report information. In the rest of this chapter, we discuss our review of the report's history and integrity, along with recommended analysis approaches which will provide more useful information to the Regents. As an overview, we outline the major features of this interim step, for the Regents, toward FRD.

The deeper analysis of currently-available faculty workload information involves:

- The continued collection of the Regents FAAR information on at least a biennial basis, using the same or similar formats;
- The additional collection during the FAAR cycle of basic faculty activity information such as course enrollments, credit hours, and degree information;
- The establishment of a baseline year, and the subsequent analysis of FAARs using time series comparisons within an institution or college, such analysis being provided preliminarily by institutions and subsequently in greater depth by the Board office;
- The provision of institutions, with their FAAR submissions, of concise descriptive interpretation of changes in activity levels as shown in the FAAR, and how those changes reflect institutional goals and plans or environmental impacts; and
- The development of the Board of Regents of a strategic set of faculty activity guidelines, based on each institution's strategic goals which merge from Regents and institutional planning.

This interim approach to FRD will still require a substantially increased level of effort on the part of the institutions, the Board of Regents and the

Board office. However, the effort invested in producing the FAAR will be put to more productive use with more cogent analysis of the reported information. We believe this approach is the most effective and realistic step the Regents can take toward FRD at this time.

History of Faculty Activity Analysis Reporting

Iowa's Board of Regents, its Regents institutions, and the Board office have been concerned with the issue of measuring and utilizing faculty workload information for almost twenty years. The development of the Faculty Activity Analysis Reports submitted by SUI, ISU and UNI (hereafter referred to as FAARs) illustrates a continuity in the recognized need for faculty workload examination in Iowa, as well as a view of the problems and potential value associated with its study.

Inception

The Faculty Workload Study was prepared by the Regents institutions in 1971. The 1971 study was the result of an extensive effort across the three institutions to determine the value of collecting and analyzing workload data and the problems related to the process of collection. The goals of the study were to report faculty workload data to the Regents in order to:

- utilize the data for institutional management internally;
- provide the Regents with consistent workload information across all three institutions for use in general decision-making;
- comply with Federal reporting requirements; and
- satisfy external inquiries from Iowa's legislature and general public regarding the degree of energy faculty members put into their work.

The institutions and the Board staff indicated throughout the study that comparison of workload data between institutions was inappropriate. Some quotes from the report summarize the institutions' anxieties at the time regarding workload measurement (and reflect a continuity of concern regarding examination of faculty workload).

Faculty workload is not an exact science, and is dependent upon the best judgment of those persons directly involved in the activities under study." [from the Committee's introductory comments]

"How would the [independent professional -] the physician, the attorney, the accountant, the architect or the engineer - classify the many hours spent in ... professional work outside the office? This problem is no different with faculty. [from SUI's comments]

Other problems identified included:

- the distortions in periodic data collected in an environment influenced by cycles of activity, such as exam periods, curricular advising, etc.;
- variations in faculty contracts, and the inclusion of unique entities such as the Ames Laboratory, the experiment station, and the Price Laboratory school; and
- variations in the definitions of activity categories and their interpretation by faculty completing the response form.

The study incorporated detailed responses collected from the entire body of faculty at each institution over a nine-month period. Data collected included time spent (in hours per week, quarter or semester) performing the following activities:

- formal instruction;
- preparation and evaluation;
- counseling and advising (these three constituting instruction);
- administrative and committee work;
- research and professional growth;
- public and professional service; and
- support services (including non-curricular services).

The final consensus was that the exercise, although time-consuming and expensive, was worthwhile and should be institutionalized.

Development

This examination of the FAAR development incorporates the docket memos dated January 5, 1973, January 4, 1974, January 10, 1975, June 16, 1980, February 14, 1986, and July 5, 1988.

Over this period, the methodology, information collected, and interpretive approach shifted. The 1973 report summarizes information from the 1971 study and recommended continuation of the effort, using contact hours as the unit of measurement. Regarding utilization of the data, the report recognized the linkage between workload analysis and management information planning. Over the next five years, the methodology and uses of the FAAR were discussed and amended. For 1976 the Board determined that a FAAR would be required biennially from each institution, which would provide:

- Faculty activity percentages by rank across the institution and within each college using the following classifications:
 - teaching activity and/or patient care;
 - administrative activity;
 - non-sponsored research;
 - sponsored research;
 - educational service agreements; and
 - other university, public and professional services.Corresponding sources of support would be included.

- Faculty effort illustrated by the average number of hours worked per week for all faculty, determined through a sampling procedure consistent across institutions.

The reports were also planned to include "discipline profiles," containing FTE faculty counts, course enrollment, credit hours, and degree-granted information. All FAAR reports currently contain FTE faculty counts by college and rank. Course enrollments, credit hours, and degree information are presented in other reports to the Regents but not in conjunction with the FAAR.

The first FAAR set from all three institutions was completed in 1978-79 and results presented to the Board in 1980. The reports from each institution were included as docket exhibits with a descriptive summary prepared by Board staff. The analysis of the reports prepared by the Board office was minimal, reflecting the fact that the results had no basis for comparisons, and perhaps that the usefulness of the data was not yet fully realized.

The next FAAR reports, presented in 1986 for the period 1984-85, were conducted, analyzed and reported similarly to those in 1980. The category "Educational Service Agreements" was changed to "Other Sponsored Activity" to conform to the Federal reporting regulations in OMB Circular A-21. Again, the Board office summary contained little analysis, since it was felt that the data collected in the 1978-79 period was not comparable enough to identify trends at any of the Regents institutions.

Recent Reporting

The FAARs submitted in July 1988 for the period 1986-87 are the third iteration resulting from the "uniform" reporting standards set in 1976. The data sets provided by the institutions are similar to previous ones; however, the Board office summary of the reports provides slightly more discussion of trends and changes from the previous report. The analysis provides charts which reconfigure the data to present various workload factors at the university level for each institution. It does not link changes in faculty workload reporting to any discussion of institutional or collegiate planning, resource allocation, or external effects. The following statement from the "green sheets" sums up the Board office's doubts regarding the validity of the FAAR information:

While there have been some changes in the percent of total effort between the six reporting categories since 1986, it is only speculative as to whether these changes have resulted in any major impacts on teaching, research, and service, or are a result of the techniques of data collection.

The analysis also compares 1988 and 1986 figures by rank and institution in the areas of teaching, administrative activities, and sponsored research.

Conclusion

While the Regents institutions, along with the Board of Regents and staff, have wrestled with the collection and utilization of faculty workload data for at least twenty years, the resulting reports do not appear to have been valued as true indicators of faculty activity or resource allocation, or consequences of institutional planning. The question must arise whether, if acceptable data collection methods cannot be agreed upon, the reports are worth the resources the institutions must expend to compile them. After completing our analysis of the FAAR development, we conclude that the FAAR information can be considered valid for deeper analysis. Self-reported data will always be suspect; nevertheless it is the most appropriate collection method given time and resource constraints, as well as the use of well-tested data collection methods. Moreover, the trend-based analysis which is recommended in the next section would provide for comparison of data collected under similar circumstances, which further validates the information, at least in a relative context. We therefore recommend that the Regents continue the FAAR efforts, and use the data for more extensive, reflective analysis of institutional activity.

NEAR-TERM APPROACH: REGENTS ANALYSIS OF INSTITUTIONAL WORKLOAD REPORTS

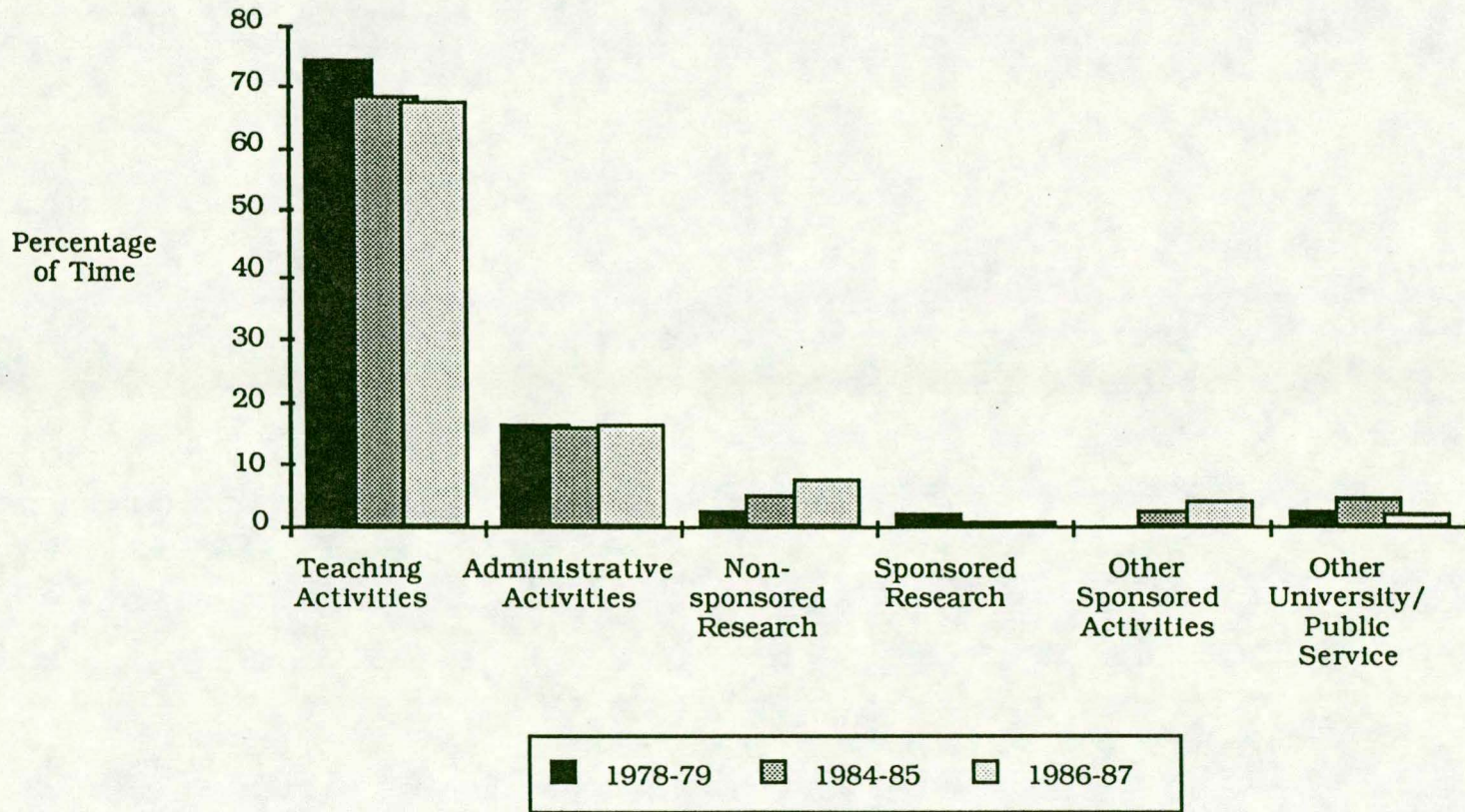
The Board staff's hesitation to fully "trust" the retrospective, self-reported data upon which the FAARs are based is well founded in research literature. Nonetheless, if the data can be considered at least somewhat reliable and are collected in a similar fashion over several periods, then interpretation may be useful to both the Regents and the institutions as a "mirror" of shifts in activity level from one point in time to another. Below, we discuss briefly some alternative interpretive approaches to the FAAR information collected for 1980, 1986 and 1988 reporting. It should be noted that 1980 report data is included to provide an example, but is probably not comparable, since activity categories and data collection methods have changed.

In order to determine shifts in emphasis regarding different faculty activities, an alternate analysis would draw comparisons across time, within a given college and rank. A growth in the percentage of time devoted to teaching, for example, may reflect a true shift in activity. As examples, we show bar charts comparing faculty activity levels in various ways from 1978-79, 1984-85, and 1986-87 (Exhibits 6 and 7). Note that the comparison is made within similar ranks at a single institution, not between the different institutions themselves.

- The use of similar methodologies and measures across the three institutions is appropriate for the sake of clarity and analysis of the data. The analysis itself, however, need not and in most cases should not involve comparing different institutions. The Regents institutions each have different missions which impel different allocation of faculty and other resources in order to achieve appropriate institutional goals. Rather than seek to compare faculty resource deployment in order to impose a uniform standard, the Board of Regents should monitor each institution's movement toward goals that it and the Board have determined together. Additional information which would help analysis would be colleges' strategic plans which imply growth or reduction goals in various faculty activity levels, as well as a brief analysis of the institution's general progress toward overall strategic goals.

For instance, in Exhibit 6 we can see that the percentage of time full professors reportedly spend pursuing non-sponsored research has increased noticeably at UNI, as a whole, between the 1984-85 and 1986-87 reporting periods. An examination of institutional goals and plans might indicate whether this growth was part of institutional strategy or whether other factors may have been responsible. If the same comparison were made at the collegiate level, we might identify which colleges were most influential on the increase and begin to explore the implications of continuing the trend or not. If an influential college has recently expanded its FTEs, that may reflect a successful strategy to attract more productive research faculty to its ranks.

Iowa Board Of Regents
 University of Northern Iowa
 Faculty Activity Analysis Reports
 Trend by Activity Type



The chart also shows a steady, low level of sponsored research, which may reflect the teaching focus of the colleges and the challenges most faculty face in any institution in attracting sponsored dollars. These interpretations are only examples of the different, more informative analysis that should accompany and stem from the FAARs.

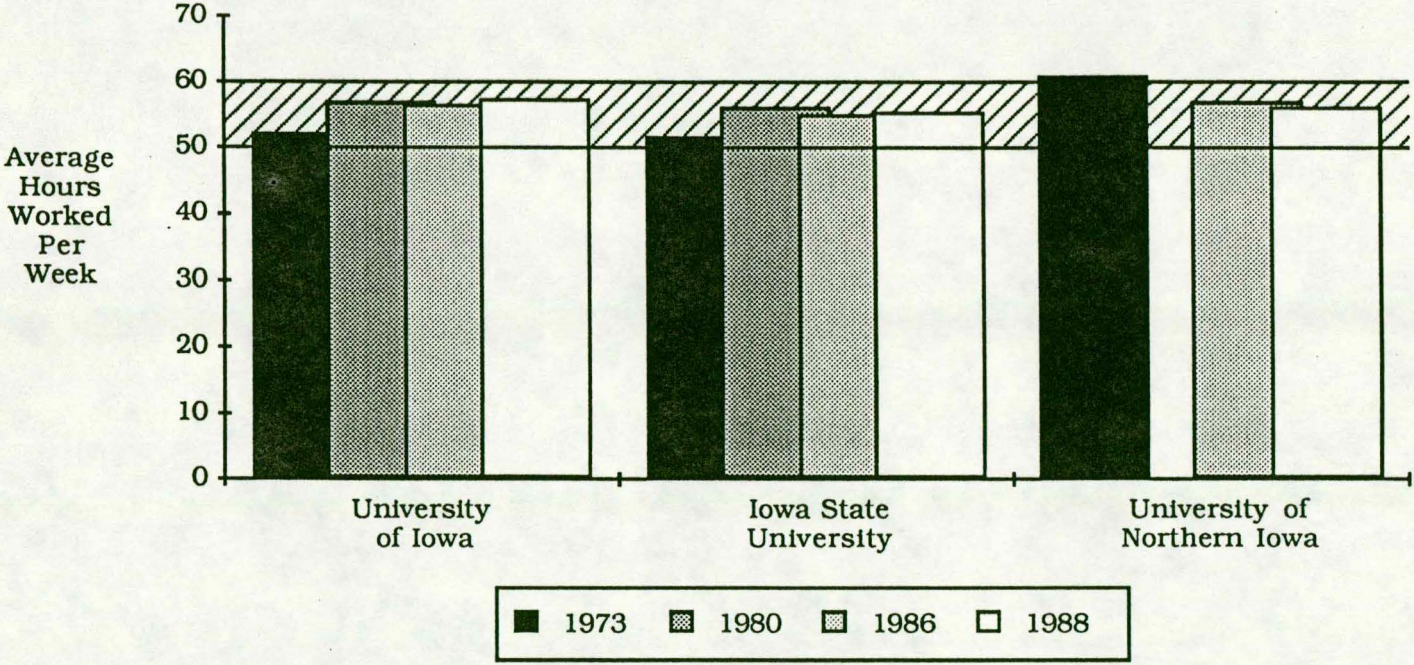
With regard to faculty effort reporting, expressed in average total hours worked per week for all faculty members, the Regents' institutions are in the mainstream of faculty time spent working. Exhibit 7 shows the effort reporting over time from the four studies conducted in 1971-72, 1978-79, 1984-85, and 1986-87. Reported averages fall within the general university standard of between 50 to 60 work hours on average in a week. Thus, it appears that Iowa's faculty work as hard on average as their colleagues do across the nation.

- A vital contribution to this kind of analysis will be the requirement of accompanying interpretive reports from each institution which would provide the hypotheses for changes over time and the linkages to goals and strategies. The institutions and the Board staff would work together to appropriately interpret the data for the Regents, who would then be able to (a) comprehend the position and direction of each Regents' institution within its own context; and (b) make strategic choices and decisions as appropriate and necessary.
- The institutions, Regents, and Regents staff should establish a baseline year from which to proceed with future trend analysis. The baseline year information should include clearly stated goals and strategies for each of the institutions, which show direct linkages to the Regents' state-level goals and priorities. Subsequent FAAR analyses might be developed to include additional strategic update information and institutional information such as: instructional FTE faculty, enrollments and student credit hours by college, and faculty credit hours by college. Appropriate research output measures by college should be included.

The accompanying institutional reports address the value of this approach in the context of institutional decision-making.

Rest Marink Main & Co.

Iowa Board Of Regents
 Faculty Effort History
 1973-88



- 06 -

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Robert T. Blackburn, "The Meaning of Work in Academia," in James I. Doi, Zed., Assessing Faculty Effort, (San Francisco: Jossey-Bass, Inc. Publishers), New Directions for Institutional Research, No. 2, Summer 1974.

Harold E. Yuker, Faculty Workload: Research, Theory, and Interpretation. ASHE-ERIC Higher Education Research Report No. 10. Washington, D.C.: Association for the Study of Higher Education, 1984.

Meredith A. Gonyea, "Determining Academic Staff Needs, Allocation and Utilization," in _____ Peterson, editor et al., Improving Academic Management, (San Francisco: Jossey-Bass, Inc. Publishers), 1981.

Harley L. Sachs, "The Publication Requirement Should Not Be Based Solely on 'Refereed' Journals," editorial opinion, The Chronicle of Higher Education, October 19, 1988.

APPENDIX 1

DISCUSSION OF KPMG PEAT MARWICK'S METHODOLOGY FOR THE FACULTY WORKLOAD STUDY

GOALS AND OBJECTIVES OF THE STUDY

Peat Marwick was retained to conduct three virtually identical studies on faculty workload, one for each of the three institutions. In each case, the purpose of the study was to provide an analysis of faculty workload, the general processes and criteria utilized in determining faculty salary levels and merit increases, and the development of teaching and research assistants. The following is a description of the audit work program as outlined in the proposal.

Audit Program

"The audit program used to address this audit area consist of the following tasks.

1. Collect and analyze workload data and faculty compensation packages. Collect similar information on teaching and research assistants.
2. Interview selected senior academic administrators, deans and department heads to ascertain issues related to faculty workload, compensation, and utilization of teaching and research assistants.
3. Devise a written questionnaire or telephone survey for the University's peer institutions to identify policies and practices related to :
 - a. faculty workload;
 - b. faculty compensations; and
 - c. utilizations of teaching and research assistants.
4. Develop a discussion paper which articulates the effectiveness of the utilization of teaching and research assistants. The paper would include information on basic data to be input into a TA/RA flow model, variables to be analyzed and suggested report formats.
5. Develop recommendations concerning faculty workload and compensation.
6. Review drafts with appropriate officials and finalize recommendations."

Through initial discussions with representatives from the Board of Regents staff and the institutions, it became apparent that the approach outlined in the audit proposal would not best serve the interests of the Board of Regents, the Board of Regents staff and the diverse constituents on the three campuses. Some of the factors that led to our decision to recast and integrate the studies are as follows:

- Many of the faculty workload issues are relevant for all three campuses, therefore a single background report would better serve the readers.
- The policies and practices regarding utilization of graduate and research assistants were inextricably linked to the broader issue of faculty workload.
- The complexity of the institutional and peer data collection efforts required by the proposal were more substantial than originally envisioned and would need to be carefully focussed and targeted.
- The institutional and peer data collection effort would only present a limited perspective on faculty activities; thus we decided that we would include individual case studies to present a more rounded picture of the variety of faculty activities.

This revised approach led us to develop four reports rather than the three originally envisioned. A discussion of the organization of the resulting reports and our methodology for conducting the study is described in the next sections of this chapter.

ORGANIZATION OF THE STUDY REPORTS

The first report, "Faculty Workload: A Framework for Faculty Resource Development at the Iowa Board of Regents Institutions," addresses the general faculty workload issues pertinent for all three institutions. It discusses the issues and complexities of capturing and assessing faculty workload, and incorporates discussions on graduate and research assistants.

This document provides a common frame of reference for the members of the Board of Regents, its staff, and the institutional constituents to collectively address the subject of faculty workload. This document also proposes ways in which the Board of Regents and the institutions might productively move toward more effective and efficient use of faculty resources, through understanding the components and imperatives of faculty resource deployment. This document goes beyond the mandate of the original proposal, to propose a methodology for developing key indicators which may be considered as potential measures of faculty activity.

The three remaining reports are devoted to each of the Regents institutions. They address the findings, issues, concerns, conclusions and recommendations stemming from our interviews and from the institutional and peer data collection efforts.

We assume that for each institution, the framework and institutional documents will be considered together. The institutional documents make the assumption that the reader has read this framework piece.

GENERAL METHODOLOGY

Our approach to this faculty workload study was both quantitative and qualitative. Quantitative data were collected through the institutional and peer data collection process. Qualitative data were collected through document review and extensive interviews. Our methodology consisted of four steps:

1. To develop the institutional and peer data collection effort.
2. To interview faculty and administrative representatives at all three campuses.
3. To analyze the data collected through the data collection effort.
4. To prepare draft reports for circulation and final reports after the institutional and Regents reviews.

Each of these activities is discussed in greater detail in the subsections that follow.

Peer and Institutional Data Collection

Data collection from the three Iowa institutions and their peers took the longest time to complete. The institutions ultimately needed two to four months to compile their own and institutional data.

During the summer months our efforts focussed on developing and coordinating the institutional and peer data collection efforts. First, we defined the nature of the data to be collected; second, we worked with the institutions in determining what data were possible to collect. This effort consisted of the following activities:

- Preliminary campus interviews (May 17-20, 1988);
- Collection and review of documents;
- Two human resources audit retreats with our two subcontractors from the Pennsylvania State University, G. Gregory Lozier and Michael Doris;
- Development of a draft preliminary framework and approach for data collection on faculty workload;
- Preparation and approval of the lists of peer institutions;
- Revision of the proposed data collection approach based on institutional comments and discussions with key individuals; and
- Delivery of the data collection documents to the three institutions.

Several critical decisions emerged from this process. These decisions, discussed in detail below, were as follows:

- To collect quantitative data on instructional workload only;
- To conduct a peer comparison at the collegiate level; and
- To collect more extensive data from the Iowa institutions than from the peer institutions.

The decision to collect only institutional data available in institutional data systems emerged from consideration of four different factors.

- Standard conventions are used across many institutions for categorizing instructional workload (student credit hours are a good example of this);
- Little data are available in institutional systems for describing the diversity of research, scholarly or creative activities that are conducted at academic institutions.
- No data are typically available in institutional systems on the service activities of faculty members.
- Data collection from the three Iowa institutions needed to be comparable with the peer institutions.

Second, we decided to examine peer comparisons at the collegiate level, not the institutional or departmental level.

- The first consideration in this matter was the intrinsic differences between the disciplines. Although department level comparison would have been most desirable, resource and time constraints prevented us from pursuing that level of data.
- Peer comparisons at the institutional level would have provided information at such an aggregated level as to be useless to the Regents or the institutions, because it would not take any account of disciplinary differences.
- Peer comparisons were therefore conducted at the collegiate level. It seemed, for the most part, that the collegiate organizations at the three institutions brought together disciplines that were relatively similar to one another. While this decision raised some problems particularly with the humanities, social science and science disciplines at all three institutions, it seemed the best compromise.

The resulting collegiate peer sets are presented in each of the institutional reports. Contact with peers and data collection from the peers was to be conducted by the institutions, rather than Peat Marwick.

Third, we decided to collect more data from the Iowa institutions than from the peers.

- We believed that it would be best to limit the peer data collection effort to ensure that we would have a sufficient response level from the peers to be able to make meaningful comparisons.

- Although data from more than one year would be more meaningful, this was believed to be an onerous request from the peers.
- Data were required that were audited and complete, which the data from the 1987-1988 school year were not. Thus, we settled on collecting data from the 1986-1987 academic year.

In collecting more data from the Iowa institutions than from the peers, our goal was to offer a baseline data set against which data from succeeding years could be compared at a later time.

Interviews

We conducted a series of interviews with senior academic administrators, deans and faculty members on each campus. The list of people we interviewed at each campus is contained in the institutional reports.

With the senior academic administrators we discussed institutional policy on faculty workload. With the deans we discussed in detail the issues of instruction, research and service in their college. With the faculty members we discussed their individual workloads and activities. These interviews provided us with qualitative and anecdotal information intended to illustrate and illuminate the picture of faculty activities on campus. The faculty interviews were oriented toward providing us with the information for the faculty profile material that is interspersed throughout the framework report.

Data Analysis

The analysis of data resulting from this project consisted of several activities:

- Review and analysis of the numerical data provided by the institutions and the peers on instructional workload;
- Review of documents provided during interviews by interviewees; and
- Synthesis and analysis of information collected in the interview process.

A computer database was set up into which we entered all the data from the institutional and peer data collection efforts. This enabled us to generate the tables and graphs presented in the institutional reports and to develop the instructional workload assessments contained in those reports.

Document review and analysis of interviews conducted on campus provided us with additional qualitative material.

Report Preparation

Because of the continuing sensitivity on campus regarding this study, we prepared a detailed outline of the reports and circulated them for discussion purposes. At the same time, we prepared draft reports which were

subsequently circulated for review. Upon receipt of institutional and Regents' comments, we prepared and submitted the final framework and institutional reports.

DOCUMENTS REVIEWED

UNIVERSITY OF IOWA

- The University of Iowa Fellowships (Brochure)
- Manual of Rules and Regulations of the Graduate College
- Manual of Procedure of the College of Medicine
- College of Nursing
 - Memo 12/14/87 from Dean Felston to Dept. Chair re: Plans for Admin. Review 1987
 - Faculty Personnel List
 - National League of Nurses - Workload Guidelines
 - Organization Chart
 - AD REM article
 - FTE Faculty and Staff 1988-89 Academic Year
 - Faculty Scholarship 1978 to 1987
 - Research Training and Development Support Sources
- College of Medicine: Policies and Procedures Concerning Faculty Appointments, Evaluation and Promotion
- "Building on Strength": Directions and Prospects for the University of Iowa - An Institutional Self-Study 1987
- (College of Pharmacy) Independent Study Lessons Program for Pharmacy Continuing Education
- Memo from Dean Sprietersbach to Deans 11/13/87 re Block Allocation Request for Graduate Student Support for 1988-1989
- Faculty Service to Public and Private Policy-Making Agencies 1988
- (Memo) Summary of Gifts, Grants and Contracts Accepted by the University from 7/1/82 to 6/30/88
- The University of Iowa Hospitals and Clinics - Statewide Service and Educational Roles and Capital Replacement Plan with Associated Financing 1986-87
- (U of I) Department of Chemistry - Guidelines for Recruitment, Appointment, Promotion and Gravity of Tenure - Chemistry Department Committees 1988/89
- (U of I) School of Dentistry - Department of Endodontics Endodontic Schedule: August - December 1988
- (U of I) College of Pharmacy - Faculty Research Interests

Performance Appraisal Process

- Training and Development Programs for University Staff (Booklet)
- Training and Development Programs for University of Iowa Staff - list of courses with times and fees
- Performance evaluation instructions including procedures and sample forms flow selected departments
- Sample of prepared performance evaluation forms
- Booklet describing performance appraisal for Board of Regents merit system staff
- Booklet describing suggested performance appraisal program for professional and scientific staff prepared by University staff development

- Memo - Policy to define the relationship of professional and scientific staff members to the University of Iowa - 4/83
- Memo - staff tuition grant rules - 6/20/88
- Memo - salary budget guidelines - 5/12/88
- Sample letters regarding individual compensation
- Comm. Hills is the office of the Vice President for Educational Development and Research and Graduate College - 1987-88
- Memo - Staff Achievement Awards - 2/2/88

Faculty Salary Procedures Policy

- Memo to Deans, Departmental Executive Officers and Administrative Officers from Vice President and Dean of the Faculties and Assistant Vice President for Administrative Services re: Budgetary Guidelines, 1981-82.
- Memo to Deans, Department Executive Officers and Administrative Officers from Vice President for Academic Affairs and Associate Vice President for Finance and University Services re: Budgetary Guidelines, 1985-1986
- Memo to Deans, Departmental Executive Officers, and Administrative Officers from Associate Vice President for Academic Affairs and Associate Vice President for Finance and University Services re: Budgetary Guidelines, 1988-89.
- Criteria and Procedures for Faculty Appointments, Evaluations and Promotion in the College of Engineering, The University of Iowa, February 27, 1985, updated July 1988.
- Engineering Faculty Council 1987-88 Meeting No. 24, Minutes of April 13, 1988.
- Checklist for Promotion and Tenure Support Materials, College of Liberal Arts.

SVI

- Audit Advisory Committee Cirricula Vitae
- College of Engineering: Manual of Procedure
- College of Engineering Faculty Activity Summary (blank)
- Criteria and Procedures for Faculty Appointments, Evaluations and Promotions July 1988
- Memo: Faculty, College of Business from Ron Mustain 4/18/88 re: Extramural Professional Activity
- Handbook for Faculty and Staff: College of Business Administration Fall 1988
- Memo: Eckstein to Department Heads, College of Medicine 8/22/88 re: Report on Extramural Activities
- Manual of Procedure of the College of Medicine March 1984
- Training and Development Programs for University Staff Salary and Fringe Benefits reporting from President's Letter Accompanying 1988-89 Budget Worksheets

- Professional and Scientific Cover System 7/28/88
- Performance Appraisal for Professional and Scientific Staff
- North Central Association of Colleges and Schools Accreditation Report
- Basic Faculty Professional Biography: 1987 (blank)
- Long Range Academic Planning 1986-91: Report to Regents 4/86
- College of Liberal Arts DEO Handbook 1988-1989
- Manual of Procedure, College of Education July 1985
- College of Law Self-Study Report 1985
- College of Law Self-Study Report Appendices 1985
- Research in Progress: A Directory 1988
- Letter from Dean James McLaren, College of Dentistry
- Long range Planning Report 1986-91
- Board of Regents Academic Seminar: Overview of the College of Dentistry 5/14/80
- Brochure: Dental Care
- Brochure: Dental Clinics
- Brochure: Geriatric Mobile Dental Unit
- Brochure: Children's Care
- Brochure: Infant Oral Care
- Brochure: Iowa Dentistry
- General Catalog 1988-90 College of Dentistry
- Brochure: DOWS Institute for Dental Research
- Student Handbook
- Operations Manual
- Constitution and Bylaws
- Faculty Directory
- University of Iowa: Schedule of Courses
- College of Nursing Faculty Handbook
- University of Iowa Performance Appraisal for Professional and Scientific Staff
- University of Iowa Staff Member's Guide for Performance Appraisal & Functional Analytic Conference
- Memo: University of Iowa Staff Achievement Awards 2/2/88 From M. J. Small to Deans, Directors and DEO's
- Memo: University of Iowa 1888-89 Budget Proposal Guidelines 5/12/88 From K. Moll to Deans, Directors and DEO's
- University of Iowa Merit System Staff Member Performance Appraisal Worksheet
- University of Iowa Performance Appraisal for Board of Regents Merit System Staff

UNIVERSITY OF NOTHERN IOWA

- UNI Long-Range Academic Planning Report 1986-91. A Report to the State Board of Regents June 1986
- Draft: UNI Long-Range Academic Planning Report. A Report to the State Board of Regents 1988
- Memo: Faculty Consulting Report March 1987 from UNI to Board of Regents
- UNI Collegiate Faculty Activity Report Forms 1987-88
 - College of Social and Behavioral Sciences
 - School of Business (missing Marketing)

- College of Education
- College of Natural Sciences:
 - Biology Department
 - Department of Earth Sciences
 - Physics Department
 - (Chemistry, Industrial Tech. Math and Computer Science (do not have))
- College of Humanities and Fine Arts:
 - Department of Art
 - Department of English Language Literature
 - Department of Philosophy and Religion
 - Department of Modern Languages
 - Department of Communication and Theatre Arts
 - School of Music
 - Department of Communicative Disorder
- UNI Personnel Action Form
- UNI Professional Development Leave Application 7/88
- UNI 1988-89 Bulletin
- UNI A Guide for Faculty-Advising and Teaching Foreign Student
- UNI School of Music Faculty Load Conversion Formula
- UNI Faculty Handbook
- UNI 1988-1990 Bulletin-Catalog Issues
- UNI Research Activities July 1, 1989 to June 30, 1986 The Graduate Colleges
- UNI Retirement, Insurance and Sick Leave Programs 2/88
- UNI Policies and Procedures Manual Sept. 1979
- Memo: From Dean Paul Uselding to School of Business Faculty 7/14/88 1988-89 Salary Information
- Department of Marketing - Faculty Activity Report

IOWA STATE UNIVERSITY

College of Design

- Director, School of Design: University of Iowa. Urbana Champaign - invitation for nominations
- Faculty Activities Report Guidelines for Annual Faculty Evaluations
- Department of Art and Design
- Brochure: College of Design
- Annual Report 1987-88
- Executive Summary: Charting the Course to 1993 - 5 Year Strategic Plan
- General Policies on Teaching Loads of Full-Time Faculty
- Art and Design: Department Faculty Evaluation Procedures
- Architecture: Annual Faculty Reports

Graduate College

- Committees of Graduate College and Office of Associate Provost for Research
- Office of VP for Research/Graduate Dean
- Office of the Associate Provost for Research/Graduate Dean
- Instructions for Completion of ISU Proposal Data Form
- Memo: Directory of Research Support Services

- Graduate Faculty Handbook 1987-88
- Graduate Student Handbook 1988-89

College of Business Administration

- Faculty Teaching Loads, Contribution Expected of Faculty, Relative Weights for Performance
- Brochure: College of Business Administration
- Enrollment Fall 1988
- Professional Data Report
- "Profiles: Business Faculty"

College of Science and Humanities

- Graduate Studies in Zoology
- Zoology Department: Grant History 1988
- Criteria for Salary Adjustments 1987-1988
- Faculty Performance and Growth Evaluation: Confidential Reports
- Brochures: Department of Animal Sciences Biotechnology Research in Animal Science Research in Animal Science
- Credit Unit Allowances Per Semester
- Department of Animal Sciences: Track Record - Payoff
- Contributions through Research, Development and Extension
- Capital Facilities Request to Serve the Livestock Industry
- Swine Research, Teaching and Extension for the 1990's and Beyond
- A Forward Plan: Research in Advanced Technology for Animal Industry

College of Family and Consumer Sciences

- Resident Instruction Workloads for Faculty and TA's
- Workload Assignment Guidelines for CFCS
- Family and Consumer Sciences Research Institute: Annual Report 1987-88
- College of Family and Consumer Sciences : Annual Report 1987-88
- Student Survey of Instruction
- Proposed Standards and Procedures for Promotion and Tenure
- Faculty Research Appointments 1988-89
- Current Status of CFCS Extramural Research Proposals
- Annual Report: Academic Programs International Affairs 1987-88

College of Education

- Policies and Procedures Handbook Expert
- Governance Document: Elementary Education Department
- Faculty and Staff Listing
- Annual Report 1988
- Teacher Education Handbook 1987-89
- "The Quality Circles Approach for Professional Development of Teachers"
- Brochures: College of Education
 - Statement of Mission
 - Educational Computing
 - Instructional Resource Center
 - Profiles: Look at Elementary Education Graduates
 - Quality and Opportunity

Profile: A Professional Development Process for Future Teachers
Quality and Opportunity

Profile: A Professional Development Process for Future Teachers
Industrial Teachers

Professors Growth Components Model

- Annual Report Supplement 1988
- Teacher On Television: Brochure
- Annual Faculty Report of Professional Activities, Dept. of Elementary Education (blank)
- Off-Campus Extension Report, Dept. of Elem. Educ.
- Visiting Team Report, Dept. of Elem. Education: March 1987 Visiting Team Report on the Spring Semester 1987 External Review of Dept. of Elementary Education: January 1988

Sociology and Anthropology Department

- Iowa State University Organization Chart
- Notes: Leadership - Program Building
- Soc. Call. Faculty Workload Allocation 1987-88
- Administrative Structure
- Faculty Governance Document
- General Structural Framework for Resource Allocation
- Memo/Attachments: Discussion Stimulations for Planning Faculty Role
- Assignments 1988-89 (Oct. 29, 1987)
- ISU Graduate Enrollment by September 1988 Fall
- Research Excellence Award Entitlements 1988/89
- ISU Undergraduate Enrollment by Dept. Only Fall 1988
- Memo: Supplemental Data Form proposal (March 17, 1988)
- 1988 Annual Report for Sociology Faculty Members with S & H Appointment)
- 1988 Annual Report for Sociology Faculty Members of College of Agr. Appointments
- 1988 Annual Report, Success Stories and Civil Rights Reports: Soc. Extension unit Sept. 1988
- College and University Service for 1986-1987
- S&H Faculty Expectation Summary
- Director, University Extension ISU
- Newsletter: The Ag Bioethics Forum
- Faculty Performance and Growth Evaluation: Confidential Report (blank)

Philosophy Department

- Annual Faculty Reports 6/86 - 87 (3 completed forms)
- Department of Philosophy Papers Presented 1987-88
- Faculty Performance (Completed forms)
- Memo: Kline, Department of Philosophy Chair to Dean Kelley 4/26/88 re: Salaries for 1988-89
- Personnel Activity Report - 5/26/88 (complete form)
- Dept. of Philosophy Publications 1987-88

College of Engineering

- Dept. of Chemistry E. 1987 Production Summary
- Sweeney Hall Space Allocation and Other Data
- Productivity Summary 4/17/87: College of Engineering
- Departmental Evaluation Summary: College of Engineering
- State of the College: From the Present to the Future 9/8/88 - College of Engineering
- Memo: Dr. Boylan, Dean to Warren Madden ISU VP Bus. Fin. re: Salary Increments
- Memo: Dr. Boylan, Dean to Seagrave, Chair Chem E.

College of Agriculture

- Annual Report 1987 Center for Agriculture and Rural Development
- Meat Export Research Center: Agricultural Experiment Station - Goals
- MERC Newsletter
- ISU Research Newsletters

MISC. - Extension

- Brochures: Iowa State University: You and University Extension
- Basic Organization: University Extension
- University Extension Newsletter
- Extension: Annual Report 1988
- 4-Year Plan of Work 1988-91 August 1987

College of Design

- Dept. of Landscape Architecture: Merit Salary Raise Distribution Criteria and Procedures
- Dept. of Architecture: Memo: Galloway, Dean to Faculty Re: Review of Arch. Dept. Chair 9/16/85
- Peer Land Grant Univ. Comparisons: Student Credit Hour Ratios Fall 85-87
- Memo: Swagerman to Galloway 1/13/88 re: Peer Land Grant Univ. Comparisons
- Memos: Underhill (Architecture) to Galloway 2/7/88 re: Teaching Loads; No. of Credits for Studio Courses; Adjusting Part-Time Studio Teacher Appointments